PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN THE

HYDERABAD ASSIGNED DISTRICTS,

FOR

1888-89.

WITH A REVIEW BY THE RESIDENT AT HYDERABAD.

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No. 419.

FROM

E. P. DANSEY, ESQ.,

Officiating Conservator of Forests,

Hyderabad Assigned Districts,

To

THE COMMISSIONER,.

Hyderabad Assigned Districts,

DATED VIA AMRAOTI, 8*th July* 1889.

SIR,

I have the honour to forward, for submission to the Resident, the Report on Forest Administration in the Hyderabad Assigned Districts for the year 1888-89

I have the honour to be,

SIR,

Your most obedient Servant,

E. P. DANSEY,

Officiating Conservator of Forests,

Hyderabad Assigned Districts.

No 1396-G of 1889.

FROM

COLONEL H. C. A. SZCZEPANSKI,

Officiating Commissioner, Hyderabad Assigned Districts,

To

THE SECRETARY FOR BERAR TO THE RESIDENT,

Hyderabad.

DATED AMRAOTI, 3*rd September* 1889.

SIR,

I have the honour to submit herewith the Report of the Conservator of Forests on the administration of the Forest Department during the year 1888-89.

2. The application of the Berar Forest Law passed three years ago has been postponed pending decision as to the scope of that law and to sanction to rules framed under section 10. The view taken by Mr. Plowden and expressed by the Conservator in his paragraph 8 differ from that of the late Mr. Leslie Saunders, and if approved of and acted on, will, no doubt, greatly facilitate and simplify Forest Administration, and will do away with the necessity for the special Revenue Regulation which was prepared and submitted for the orders of Government.

No organization of the forest system is possible until the various areas are finally classified and the laws which are to govern them are defined. This has yet to be done.

3. During the year under report the demarcated State forests underwent a reduction in area of 18 square miles, whereas the district reserved forests increased by 13 square miles, and the unreserved forests increased by 40 square miles. The changes under the first two classes of forest were mainly due to corrections of classification.

In the Basim District 26 square miles of land were given over for cultivation, probably before orders were received prohibiting further extension of cultivation pending classification.

It is satisfactory to observe that the boundaries of the reserves were kept in order, and that great progress has been made in repairing the boundary-marks in the Amraoti District.

The survey of the Melghat Taluk has been completed by the Forest Survey Department, with the exception that the western boundary touching on Nimar in the Central Provinces is still unsettled It is really immaterial which of the disputed boundaries is decided on, but correspondence on the subject is still going on. The final cost rates for this survey were Rs 79 per square mile for surveys on the 4″ scale, and Rs. 57 for those on the 2′ scale. These costs compare favourably with the final cost rates in other parts of India.

The survey of forests in the south of Berar has been postponed until a final classification is decided on.

4. The number of prosecutions for breaches of Forest Rules rose from 387 in 1887-88 to 496 in the year under report Out of 501 cases dealt with (five pending

from previous year) conviction was obtained in 417 cases. The more remarkable increase was in the number of prosecutions for unauthorized felling or appropriation of wood and other minor forest produce in the Buldana District—due perhaps to the reason given in paragraph 34 of Conservator's Report, but a good deal to uncertain knowledge of the rules,—not only on the part of the people, but also on that of Government officials.

5. The result of fire conservancy was, on the whole, very successful; the area attempted was 680,271 acres, being 11,900 more than in the preceding year, and of this 667,967 acres were successfully protected. Out of the 12,304 acres of failures 10,955 acres were for the Wun District. The Deputy Commissioner, Wun, considers the fires due to accident, and not incendiarism, and their spread owing to the sparse population in the vicinity of the forests; but it must be remembered that a very extensive area was taken up as State forest in the Wun District, thus depriving the wild inhabitants of those parts, who looked to the jungle for their sustenance, of certain benefits which they had enjoyed from times immemorial, and it is not improbable they may have had something to do towards causing the fires. It has been decided that so-called "light grazing" is incompatible with strict forest conservancy, and it will be observed from paragraph 46 of the Conservator's report that he has issued orders putting a stop to all grazing within the demarcated State forests, except in those cases where undoubted hardship would ensue to the surrounding population. When the nature of the South Berar reserves is considered, "some promising parts intimately associated with a disproportion of stony arid ground quite unsuited to the formation of good forest and which would appear occasionally only capable of producing a low order of forest vegetation,"—the question arises whether it is worth while to withdraw large areas of such land from grazing, or if a strict conservancy of trees and regulation of felling would not do all that is necessary.

7. The number of cattle for whose grazing in the district reserved and unreserved forests dues were paid increased by 15,143 compared with the previous year; the increase occurred only in the Akola and Wun Districts, whereas in the other districts there was a general decrease. Probably there is some diversity of practice in the system of realizing grazing dues prevailing in the several districts.

8. As directed by the Government of India, the subject of natural reproduction has been treated at length in a separate appendix by the Conservator of Forests, who has given the opinion expressed by the District Forest Officers and his own views on the subject.

The efforts made to re-stock and improve the Berar forests by artificial means have been attended with ill success, due, no doubt, to want of system and a proper appreciation of local sylvicultural conditions. In future these efforts should be made under the conditions described in paragraph 55 of the Conservator's report.

9. The income derived from the several sources of forest produce was Rs. 4,08,192, against Rs. 4,06,247 in the previous year, whereas the expenditure was only Rs. 1,69,295, against Rs. 1,83,160, showing a surplus of Rs. 2,38,897, being the highest on record for Berar.

Bamboos, timber, minor produce and miscellaneous sources yielded an increase of revenue, whereas firewood, grass, and grazing show a decrease.

10. The work of demarcating village grazing areas in the three districts of West Berar has not yet been commenced; the matter is pending the collection of information, the determination of certain questions at issue, and the preparation of a working plan, but in the meantime orders have been issued not to give any more land for cultivation.

The Conservator of Forests has been called on to submit an early report on the question of re-closing the reserves that have been thrown open for limited

grazing and of the entire closure of certain areas until their reproduction is ensured, and also to prepare a circular pointing out to District and Police Officers their duties in connection with fire protection not only in the reserves, but also in the open forests in the vicinity of fire protected areas.

11. The department has been successfully administered, and thanks are due to Mr. Dansey for his very full and valuable report.

I have the honour to be,

Sir,

Your most obedient Servant,

H. SZCZEPANSKI,

Officiating Commissioner,

Hyderabad Assigned Districts.

PROGRESS REPORT OF FOREST ADMINISTRATION IN THE HYDERABAD ASSIGNED DISTRICTS FOR THE YEAR 1888-89.

INTRODUCTION.

Mr. R. H. C. Whittall, Officiating Conservator of Forests, was in charge of the Circle up to the 3rd January 1889, when he gave over charge to Mr. G. F. Prevost, Deputy Conservator, who was again relieved on the 5th of the same month by Mr. E. P. Dansey, the present incumbent.

2. The Ellichpur Division was in charge of Mr. G. F. Prevost, Deputy Conservator, throughout the year.

3. The Amraoti Division was held by Mr. R. H. C. Whittall, in addition to his duties of Conservator, up to the 29th April 1888, when Mr. Rasul Khan, Sub-Assistant Conservator, relieved him on transfer from the Buldana Division.

4. The Basim Division was, throughout the year, in charge of Mr. G. F. Taylor, Officiating Deputy Conservator.

5. The Akola Division was, throughout the year, in charge of Mr. G. F. Taylor, Officiating Deputy Conservator, as an additional charge.

6 The Buldana Divisio was held by Mr. Rasul Khan, Sub-Assistant Conservator, up to the 18th April 1888, when Mr. G. H. Wittinbaker, Probationary Sub-Assistant Conservator, relieved him, continuing in charge for the remainder of the year.

7. The Wun Division was, throughout the year, in charge of Mr. Mansukh Rai, Sub-Assistant Conservator.

8. The new Berar Forest Law has not, as yet, come into force. There appears to have been considerable misapprehension in regard to the scope of the new Law, and the elasticity of its provisions In June 1887 a Committee, presided over by the Commissioner—the late Mr. Leslie Saunders—assembled at Chikalda to discuss the subject, and this Committee proposed, among other things, that all the Unreserved Forests, and an important part of the District Reserved Forests (the Grazing-Reserves) should be excluded from the operation of the new Law and placed under a special Revenue Regulation. The consideration of this proposal and of the various rules framed in connection with it has, doubtless, tended more than anything else to delay the publication of the new Law. It has, since, been pointed out that there is nothing in this new Law itself which can prevent Government from using any State-Forest constituted under it, as it may think proper. And to render still more certain that the intentions of Government in regard to each State-Forest shall not be departed from, it has been proposed that forests notified under the new Law should be *classed*, according to the *main purpose of their reservation*, into:—

State-Forests	(Class A)	... Timber and firewood being the principal objects of reservation.
Do.	(Class B)	... High grass being the principal objects of reservation.
Do.	(Class C)	... Grazing being the principal objects of reservation.
Do.	(Class D)	... Convenience pending the cultivation of the area in part or in whole.

Each of these Classes would be subject to Management Rules of its own, which would make the provisions of the Law more or less lenient in the case of each Class according to the degree of protection required or practicable.

It should be possible, in this way, to apply the new Law to the entire area of Berar forests under the management of the Forest Department, and it is hoped that the elasticity of the new Law being thus understood and appreciated, the next year may see it finally introduced, and the whole area of Berar forests gazetted and classified under it.

9. The extension of the so-called Bagshawe District Scheme (by which is principally meant the creation in each District of Grazing-Reserves distributed as equally as circumstances will admit) to the Districts of Akola, Basim, and Buldana is still under consideration. In the meantime, the further breaking up of land for cultivation has been put a stop to in those parts of the Province.

10. The Babul-Bans constituted under the same scheme by Mr. Bagshawe over the other half of Berar will have to be revised, with the probable result of transferring a large proportion of them to the class of Grazing-Reserves. Very many of these so-called Bans hardly contain a tree, or are so circumstanced as to make their permanent maintenance for purposes of timber and fuel a too costly undertaking. It will be necessary to restrict these Reserves, in their present sense, to such Bans as are conveniently situated for purposes of protection, to such as are near important centres of consumption, or are sufficiently large of area, as well as rich in forest, to justify the cost of superior maintenance. The impracticable nature of existing arrangements is seen in the circumstance that all these Bans are heavily grazed over, nothwithstanding that this is strictly forbidden in Book Circular No. 1 of 1884. Where is the establishment to come from which could efficiently protect these hundreds of Babul-Bans, varying in size from 1 acre to 200 acres, and scattered all over the Province ?

11. It will be gathered from the present Report that there is much work remaining to be done in Berar before the organisation of its forest system can be considered complete.

CHAPTER I.—Area and Boundaries.

1.—*Area.*

15. The new Forest Law not having come into force, the old order of classification is adhered to. This is in conformity with the Forest Rules of 1871 which, for the present, make the Government of India Circular No. 4-F. dated the 23rd April 1887 quite inapplicable to this Province. The introduction of the new Law should be followed by the transfer of all District Reserves and Unreserved Forests to the class of State Forests, thus greatly simplifying existing arrangements.

16. Much has been written—see Report for 1887-88—on the insufficiency of the Berar *timber* Reserves, and doubtless there is cause for uneasiness in this respect as regards South Berar. In its Resolution on last year's Report the Government of India gives expression to the same anxiety. It is not only that the area of these Reserves is small when compared with the populations that they will have to supply, but that this smallness of area is attended by circumstances of exceptional poverty in regard to the stock and—a worse feature—in regard to the soil.

The Local Government suggests that, instead of seeking to add to our *timber* Reserves, we should do more in the way of concentrating and enriching such as we already possess. It is certainly a reproach to Berar forest administration that its timber Reserves are not subject to Working-Plans, and improved from year to year with that system and method that authoritative Working-Plans, prepared by experts in these matters, can alone ensure. On the other hand, the fact

should not be lost sight of that what these forests now stand most in need of is rest and protection from fire, and this they are having. Indeed the record of fire protection in the Berar forests compares more than favourably with the results obtained in other Provinces. It should also be remembered that the open condition of the Berar timber Reserves, and scanty inferior tree growth, are, as regards much of the area, due to natural causes for which the forest officer can have no remedy. In all the South Berar Reserves we find, intimately associated with the more promising parts of the forest, a disproportion of stony, arid grounds that are quite unsuited to the formation of good forest, and which would appear occasionally only capable of producing a low order of forest vegetation.

It is because we are aware of this inherent poverty of the Berar timber Reserves, and the limits which Nature herself has placed to their productiveness, that we are impelled to supplement this poverty, where practicable, with a relatively large area. And where this increase can be effected without undue hardship to the people, it seems desirable to do so while there is yet time, and while there are any good timber tracts left. It will be always possible to relinquish hereafter such areas as may not be found necessary, or to transfer them to the class of Grazing-Reserves or Ramnas.

It is to be feared, however, that much as this extension may be desirable in South Berar, the work has been already postponed too long. Cultivation has made great strides during the past twenty years; some of the best forests have (as in Wun) been leased out (to Izardars) under conditions which will probably make it impossible for us to resume them; and considerable as the area of waste may still be in certain localities, it is too often the case that the soil is unsuited to our purpose—which is here timber, and not grass, or firewood—that the land has been too much split up by cultivation, or that the forest has disappeared to the degree of making restoration a costly, risky, and questionable project.

Notwithstanding, the question of adding to the existing timber Reserves is a sufficiently weighty one to suggest economy in regard to the more promising of the woodlands that may still remain to us. Both the Buldana and Wun officers animadvert, in their Reports of the year, on the destructive practice said to be prevalent in those districts of people taking up Unreserved lands on the mere pretence of cultivating them, only to resign them when the more valuable timber has been cut out—presumably to continue the same operation elsewhere.

17. The following table shows the changes effected during the year in the area of forest lands under the management of the Department:—

Description of forest.	Area in Square Miles				Percentage of Forest Area to Area of Province.
	On 1st April 1888	Added during the Year.	Excluded or transferred to other Heads.	Area on 31st March 1889.	
Demarcated State Forests	1,107	19	67	1,059	6
District Reserves	435	70	27	478	2·7
District Unreserved Forests	2,574	77	37	2,614	14·7
Total ...	4,116	166	131	4,151	23·4

18. *The Demarcated State Forests* underwent a reduction in area of 48 square miles, due to the erroneous inclusion in former Reports of the entire Amraoti Hills Reserve, of which but 13 square miles (the Chirodi-Reserve) have been sanctioned as a Demarcated State Forest. Doubtless, the whole area will shortly be gazetted as such; but until this is done it seems only right to relegate areas to their proper legal position.

The additions during the year are the result of transfers from the District Reserves, namely:—

		Square Miles.
(*a*) The Mehdari State Forest in Amraoti	...	6⅓
(*b*) The Borgaon State Forest in Akola	...	2¼
(*c*) The Medsi (1,115 acres), Ekburji (172 acres), Mohoja (2,111 acres), Chandas (3,016 acres), State Forests in Basim	...	10
Total	...	19

19. *The District Reserved Forests* underwent a net increase of 43 square miles. This is mainly the result of the transfer alluded to in paragraph 18 in respect to the Amraoti Hills Reserve, by which 67 square miles of forest reverted to their proper legal status. This increase was further effected by corrections of area amounting to 2½ square miles.

The exclusions comprised:—

19 square miles transferred to Demarcated State Forests;
8 square miles added in correction of area.

20 *The District Unreserved Forests* increased by 40 square miles, which is explained thus:—

		Square Miles.
+	(*a*) Thrown out of cultivation ...	33⅓
	(*b*) Block Numbers in khalsa villages classified and added (Wun District)..	13
	(*c*) Leased lands resumed (Wun District)	½
	(*d*) Corrections of area	30
	Total ...	+ 77
—	Land given over for cultivation ...	37
	Total ...	— 37
	Balance ...	+ 40

The following table illustrates the progress of cultivation in the different Districts, in its connection with the Unreserved Forests:—

	District	Thrown out of Cultivation	Given over for Cultivation
		Square miles	Square miles
East Berar { In which the Bagshawe scheme is in force.	Ellichpur ..		
	Amraoti ..	6¼	¼
	Wun .	10¼	6½
West Berar { In which no lands have been set apart for grazing purposes.	Akola ..	5¼	2½
	Basim ...	3¼	26
	Buldana .	8	1½
	Total ..	33½	37

The orders of Government prohibiting any further extension of cultivation in West Berar pending the reorganisation of its waste lands appear to have arrived too late in Basim, where the Unreserved Forests were still further reduced in this respect by the enormous area of 26 square miles.

The net increase in the area of Unreserved Forests is mainly the result of a correction of area in Akola, where the "free grazing numbers" appear to have been omitted from previous statements. The extent of these Unreserved Forests is, from the nature of the case, subject to variations, and the accuracy of the figures given for the fluctuating elements which compose them is not to be relied upon.

2.—*Boundaries.*

21. In all Districts the boundaries of the Reserves were kept in order. In Amraoti the heavy work of repairing the boundary marks of District Reserves was continued, 12,419 marks were thus taken in hand at a cost of Rs. 1,100. The demarcation of the Mehdari Reserve in Amraoti was completed.

CHAPTER II —Surveys, Working Plans and Annual Plans of Operations.

1.—*Surveys*

22. The following extract from the Progress Report of the Superintendent of Forest Surveys for the survey year ending 1st October 1888 deals with the Berar forest surveys up to the date of their coming to a close. Mr. Reynolds fully explains the reasons which led to the postponement of the survey in South Berar His observations on the unsettled state of the boundary between the Melghat Taluk of Berar, and the Nimar District of the Central-Provinces, and the consequent delay in passing through the press the new map sheets of the western boundary of the Melghat, are of importance

"The Melghat survey party, with head-quarters at Chikalda took the field on the 15th November 1887, and the last of the surveyors returned to recess quarters on the 15th July 1888.

"The party was composed of Mr E Litchfield, Officiating Deputy Conservator of Forests, two European Assistants, and a staff of native surveyors; and, for topographical survey purposes, it was divided into four sections, three of which worked under European supervision, and the fourth worked under the supervision of a skilled native surveyor of proved ability; later in the season a second native surveyor was added to the staff of supervisors. The entire work was supervised by Mr. Reynolds, the Superintendent, who was with the Berar party from the end of January to the 4th April, except for a short interval in February, when he visited the Raipur triangulating party.

"Section No. 1, under Mr. Litchfield, worked on the 2" scale, and completed areas in the Dulghat Pergana, chiefly on sheets Nos. 13 and 14, the second section under Mr.

Chill worked partly on the 4″ and on the 2″ scale, and was employed in completing portions of sheets Nos 20 and 20-A; Mr. James Marten, with Section No. 3, was engaged on 4″ work in the Amner Pergana and the Bingara Jagir; and the fourth section was employed in completing the survey of the Bairagarh Reserve on the 2″ scale.

"The area topographically surveyed was 760 square miles, of which 207 square miles have been surveyed on the 4″ scale, and 553 square miles on the 2″ scale. The average number of plane table stations per square mile was 102, and 21 additional stations per square mile were added by the supervising assistants in testing and checking the work.

"The cost of the season's work, estimated on the area plane-tabled, is, for the 4″ survey, Rs. 64 per square mile; and Rs. 42 per square mile for the 2″ work. In the previous year the cost rates were Rs. 67 and Rs. 46 respectively.

"Up to date, the survey operations in Berar have extended over an area of 2,799 square miles; 2,505 square miles have been triangulated; the traversing has extended over 2,143 square miles; and a detailed topographical survey of 2,150 square miles has been completed, of which 931 square miles have been surveyed on the 4″ scale, and 1,219 square miles on the 2″ scale.

"The detail survey comprises the *entire* Melghat Taluk, the Bingara Jagir, the hilly portion of the Akola District adjoining the Melghat, as well as the State Forests of Gerumatergaon in the Buldana District. As may be seen from the foregoing figures, a considerable area has been prepared in advance in South Berar for detail survey.

"A new Forest Law for Berar is on the point of issue, in which only one class of forests, called "State Forests," is recognized, and it is now under consideration which of the Forest Department lands shall be brought under the new Law as "State Forests;" and as it is very possible that, under the new law, additions may be made to the old Demarcated Reserves, which alone were originally intended to be surveyed, the Resident at Hyderabad considers it advisable that, for the present, the survey of the South Berar Reserves should be postponed, so as to avoid going over the ground a second time.

"Under the circumstances noted in the previous paragraph, and as the survey of the entire Melghat Taluk and other areas have been completed, it is desirable that the final cost rate of the completed areas should be recorded.

"The total expenditure incurred by the Forest Survey Branch on account of surveys and other work done for the Berar Government since the Survey Branch entered the Province in 1883, and up to 1st October 1888, is Rs. 1,95,968; the amount expended under survey heads, and from which the final cost rates of the survey are deduced, is Rs. 16,989.

"A detailed statement showing the expenditure under survey headings is given in Appendix E.

"From these figures it will be seen that the cost per square mile of areas completely surveyed is, for the 4″ scale, Rs. 79, and Rs. 57 for the 2″ work. These figures are somewhat higher than the annual cost rates for the past two years; but this is due to the fact that much heavier charges for triangulation and traversing were incurred, in the earlier years of the survey, for work in advance than was incurred under these heads during the last two years of the survey.

"The figures therefore noted above might be accepted as the figures of final cost per square mile for the completed Berar areas.

"In previous Forest Survey Progress Reports the following final cost rates are given for surveys already completed by the Forest Survey Branch:—

		Rs.
Himalayas.	Kumaun and Garhwal	115
	Jaunsar and Tons	192
	Bhagirathi	127

"The final cost rates for the survey of the Melghat Taluk, *viz.*, Rs. 79 per square mile for surveys on the 4″ scale, and Rs. 57 per square mile for those on the 2″ scale, compare favourably with the final cost rates of previous surveys.

"The *estimated cost* of the Melghat survey, which was based upon the figures for the Kumaun and Garhwal survey, was for the 4″ survey estimated at Rs. 140 per square mile, and Rs. 70 per square mile was estimated for the 2″ work. Thus it will be seen that the final cost of the Melghat survey is well within the estimated figures.

"It is necessary to note here that the western boundary of the Melghat Taluk touching on Nimar is still unsettled; the boundary is a very important one, as it forms the provincial boundary between Berar and the Central-Provinces. The boundary shown on the maps of the Hyderabad Topographical Survey 1860-61, and that shown by the Revenue

Survey Maps of 1869-70, do not in all respects accord, and a third line of boundary exists on the ground, the latter being demarcated by 36 masonry pillars. The pillars were built in 1877, and the line demarcated by these pillars is acknowledged by the Deputy Commissioner of Nimar as the correct provincial boundary. The Commissioner of Berar, however, declines to accept the line demarcated by masonry pillars unless it can be shown that the pillars have been built upon the original line decided upon by competent authority.

"It is clear that either one or the other of these lines must be accepted, unless an entirely new line of boundary is adopted. The case is still under consideration; but until a decision is arrived at, it will not be possible to pass through the press the new map sheets containing the western boundary of the Melghat."

2.—*Working Plans.*

23. The particulars given in last year's Report regarding the working of the Raipur-Makhla Working Plan are not in order, and the results shown inaccurate. Mr. Prevost, the officer in charge of the Ellichpur Division, is in this connection to blame for having furnished the Conservator with incorrect data. Although Improvement Fellings on an irregular and unimportant scale (including the felling of first class trees) continued in these two Blocks in the interval between the valuation survey and the period of the Plan coming into force, practically Colonel van Someren's sanctioned Working Plan was not introduced until the 1st April 1888, that is to say the present year.

24. The following is an account of the exploitations under the provisions of this Plan, as given by Mr. Prevost for the year under review:—

"Over the selected area of 3½ square miles in compartment No. 11, Block VI, 628 first class trees were felled. With but two solitary exceptions, the whole of these trees were unsound. The trees were of great age, hollow, and had all their bases much injured by fire, and were very stunted in growth. No really good timber was obtained. As a rule the only parts of the tree utilized by the timber merchants were the goles and poles which had grown up since the trees were pollarded previous to the formation of the Reserve. The total revenue realized (on these 628 first class teak trees) was Rs. 3,206, or, on an average, Rs. 5 per tree.

"Over the same area (3½ square miles) Improvement Fellings were also carried out, with the result that 2,450 teak and 1,050 trees of other species were felled. These realized Rs. 2,317. Out of these 3,500 trees of inferior species 648 proved unsaleable."

25. The present Officiating Conservator has devoted some time to an inspection of this Working Circle, and has studied the Plan itself in all its bearings. His conclusion is that Colonel van Someren's Plan ought to be revised, and for the following reasons. It is based on the supposition that the second class teak trees (those of a girth of 4½ feet to 6 feet) are still in a condition of vigorous growth, and susceptible of continuing in that state up to a girth of 6 feet (the lowest limit of the first class teak trees), and it accordingly provides for the removal of the existing stock of first class teak trees during a period calculated to be necessary for a corresponding number of second class teak trees to reach first class dimensions. But the Conservator's opinion, and this opinion would seem to be shared by the local officers, is that the existing stock of second class teak trees is *not susceptible* of any further sound development, that these trees are almost all unsound or useless at the present time, and that the limit of sound growth in connection with the *existing* teak stock is not 6 feet, but something approaching 4½ feet only. Further, the Conservator has come to the conclusion that two-thirds of the entire teak stock now on the ground is either unsound or hopelessly deformed. A memorandum on the subject, dealing with the present condition of the forest in these two Blocks, and with the sanctioned Working Plan, has been submitted for the opinion of the Inspector-General of Forests. This memorandum contains Mr. Dansey's suggestions in respect to the principles which should, in his opinion, underlie any Working Plan for this forest, and for the Melghat forests generally.

26. No other Working Plan has, as yet, been prepared for our Berar forests, nor is there one in course of preparation. They are urgently wanted for the dilapidated Reserves of South Berar, in connection with which small efforts at planting, sowing, improvement fellings &c., have hitherto proceeded from year to

year without any pre-considered system. However, with the prevalent paucity of officers, it is very difficult to do our best for the forests; it is perhaps creditable that we succeed in doing so much. In Berar, again, the ordinary demands of forest administration are not of a nature, if we except Ellichpur, to require the services of highly trained officers. Consequently, most of the Divisions are, or soon will be, in charge of Sub-Assistant Conservators who, suitable enough for carrying on their duties with Working Plans to guide them, are yet quite incompetent to frame these Working Plans themselves. This requires a much higher standard of professional knowledge than is to be expected of them. And since any one Working Plan represents, on the part of its projector, a knowledge of the forest in question that is only to be acquired in the course of weeks and, occasionally, even months devoted to an intimate examination of all its parts, the Conservator could only undertake to do this task in person after having passed several years in the Province; or, if new to it, at the cost of leaving the greater part of his Circle unvisited by him during the year, or at least imperfectly inspected. This last would evidently be an undesirable arrangement.

3.— *Annual Plans of Operations.*

7. The whole of the year's forest work was on the basis of Plans of Operations. As far as practicable, these were adhered to.

CHAPTER III.—Protection and Improvement.

1.—*Establishments.*

28. An additional Sub-Assistant Conservatorship was sanctioned for the Circle, bringing the total number of those appointments up to 5. But, while this additional appointment has not yet been filled up, consequent on the nominee having failed to pass his final examination at the Dehra Forest School, the Province has practically had to manage with three of these officers only. The fifth appointment is quite a nominal one, from which the Department derives no material advantage whatever. The arrangement under which one of the Sub-Assistant Conservators holds the appointment of Tahsildar of the Melghat, under which he gets a considerable part of his salary paid to him from the Forest Budget without having more than a nominal connection with the Forest Department itself is, the Conservator thinks, an undesirable one, giving the establishment, as it does, a false appearance of strength in a direction where it is very weak.

29. The six forest Divisions of Berar have, at the present moment, the following staff above the rank of Ranger:—

3 Sub-Assistants (each in charge of a Division).
1 Officiating Deputy Conservator (in charge of two Divisions).
1 Deputy Conservator (in charge of a Division).

There are thus no officers available for special works above the rank of Ranger. There is not an officer available for the charge of every District. There is no reserve whatever for occasions of leave or sickness. One of the above officers has served six years since his last privilege leave, one over four years, another over three years. In the event of the severe illness of one or two superior officers, work would, it is feared, greatly suffer. Fortunately, the divisional officers have kept fairly well hitherto, in spite of a feverish and hot climate, and, as regards the Melghat, a more than usually unhealthy one.

30. The system of collecting grazing dues on passes has added to the work of the subordinate establishment; and this is particularly the case in those Districts where "free-grazing-numbers" are found, by reason of the facilities which are then offered to illicit grazing and the evasion of payments. The reorganisation of the forests, consequent on the introduction of the new Forest Law, will be taken advantage of to revise the whole of the establishment.

2.—General Protection and Breaches of the Forest Law.

31. None of the divisional officers give sufficient information under this heading. They would appear to lose sight of the fact that the degree of protection afforded is not to be measured, either by the number of convictions obtained, or by the comparative absence of prosecutions. The former circumstance merely attests to the care taken in sifting cases before having recourse to more serious measures, while both circumstances may well be compatible with an indifferent state of forest protection as a whole.

32. The following statement gives the classification of forest offences during the year :—

Particulars of cases.	Number.		Increase.	Decrease.
	1887-88.	1888-89.	In 1888-89.	
1. Injury to the forests by fire	6	6	...	...
2. Unauthorized felling or appropriation of wood and other minor produce	178	337	159	...
3. Grazing without permission	18	19	1	...
4. Other offences	185	134	..	51
Total ...	387	496	160	51

33. The new cases increased by 28 per cent., and the percentage of convictions rose from 82 to 84.

34. The principal increase of prosecutions took place in Buldana, where it exceeded the figures of the previous year by over 400 per cent.—almost all cases of unauthorized felling, &c. The very high percentage of convictions (90 per cent against 53 per cent. in the previous year) would seem to indicate that the law had not been sufficiently enforced in this District in the previous year under Mr. Rasul Khan's management; and this conclusion appears to be borne out by the fact that that officer's transfer to Amraoti has been followed by a large decrease of cases in that District, amounting to no less than 46 per cent., while the convictions have at the same time decreased from 85 per cent. to 76 per cent.

35. Both in Akola and Ellichpur there was an increase in prosecutions amounting to 40 per cent., the percentage of convictions standing at the high figure of 80.

36 In Basim there was a remarkable decrease in the number of cases, these being 66 per cent. under the figure of the previous year. But the percentage of convictions was very high, namely 86. The divisional officer writes that it is satisfactory to note this diminution in the number of forest offences. The Conservator cannot agree in Mr. Taylor's conclusions. The transition is too sudden and rapid. For instance, the number of cases under "other offences" has decreased during the year from 71 to 2, and under "unauthorized felling, &c.," from 68 to 30. Seeing that Basim had a divisional forest officer's undivided attention in 1887-88, and that during the present year Mr. Taylor has had the Akola District to look after in addition to Basim, the Conservator is not inclined to argue favourably from the above figures.

37. As regards Wun, it is discouraging to notice that, notwithstanding the unsatisfactory state of fire-protection in that District—fires mainly attributed to incendiarism—not one prosecution occurred during the year in that connec-

tion, nor did one take place in the previous year. The total number of new cases increased from 29 to 43, while the percentage of convictions decreased from 86 to 74. These results can hardly be considered satisfactory.

3.—*Forest Fires.*

38. The results of the year's fire protection are shown below.—

Division	Year	Area attempted	Results. Successfully protected.	Results. Failures.	Approximate cost per square mile of area attempted.
		Acres.	Acres.	Acres.	Rs. a
Ellichpur	1888	387,093	386,233	860	4 0
	1889	387,093	386,606	487	4 8
Amraoti	1888	13,071	11,838	1,233	17 0
	1889	17,123	16,961	162	8 12
Akola	1888	31,511	31,511	...	1 1
	1889	32,946	32,946	...	14 5
Buldana	1888	59,664	54,669	4,995	2 11
	1889	59,664	59,607	57	1 15
Basim	1888	80,287	80,157	130	7 3
	1889	86,700	86,057	643	8 3
Wun	1888	96,745	75,045	21,700	10 10
	1889	96,745	85,790	10,955	12 6
Totals ...	1888	668,371	639,453	28,918	5 5
	1889	680,271	667,967	12,304	6 8
Difference in favour or against the year ...		+11,900	+28,514	—16,614	+1 3

39. The area attempted was increased during the year by 11,900 acres, while the successfully protected area was greater than that of the previous year by 28,514 acres. Out of a total of 680,271 acres attempted, only 12,304 acres were burnt, or 1·8 per cent. It will be seen that Berar stands, in respect to the fire protection of its forests, on a higher level than any other Province under the Government of India. The cost of protection underwent an increase. But this increase is, to some extent, only apparent, as the cost of protection in Akola for the previous year appears to have been improperly put. The expenditure incurred in that District on cleaning fire-lines is in a great measure met by the grant of the grass thus cut to the labourers, in lieu of wages If the value of this grass is taken into account, as it obviously should be, the cost of protection per square mile in Akola for 1887-88 comes to Rs. 12-8-0, and not to Rs. 1-1-0, as given in last year's statement. The real increase for the Province for the year under review comes to 10 annas per square mile.

40. Notwithstanding a very trying season, the results of fire conservancy were singularly successful in all the Districts, Wun excepted.

41. In Ellichpur, only 487 acres were burnt out of 387,093 acres under protection. This is the 17th year that the Raipur-Makla blocks have had no forest fires within their limits.

42. In Amraoti, the new Mehdari State Forest (4,052 acres) was successfully protected, only 60 acres having been burnt, and of the remaining 13,071 acres under protection only 102 acres were burnt.

43. In Akola not one acre was burnt out of 32,946 attempted, of which 1,435 acres were taken in hand for the first time. The cost of protection

amounted to Rs. 771, of which Rs. 472 were, however, paid in the form of the grass removed from the fire-lines.

In the previous year Rs. 54 were paid in cash, and Rs. 562 in cut grass. This is an excellent method of payment. Unfortunately the demand for grass is not in proportion to the supply of that produce.

44. In Buldana only 57 acres were burnt out of 59,664 acres under fire protection; and in Basim only 643 acres out of 86,700 acres, of which 6,413 acres were attempted for the first time.

45. Fire protection in Wun was unsuccessful notwithstanding the efforts of Colonel Rennick, the Deputy Commissioner, who seems to have done everything which could be done towards impressing on the people, and on the officials the importance attached by Government to the preservation of its timber Reserves. It is true that the area burnt this year was less than that burnt in the year before by one half. Still, the percentage of failures is 11 against 0·2 for the rest of the Province; and the following retrospect shows that we have no cause for feeling confident as yet in regard to the future of fire protection in Wun:—

	Failures.
1885	10,788 acres.
1886	23,508 „
1887	11,419 „
1888	21,700 „
1889	10,955 „

With reference to the Wun fires of the present year, no less than 2,100 acres are reported to have been burnt through the negligence or disobedience of the forest officials themselves. The cause of the larger fire (7,000 acres) has not been ascertained, although from the circumstance of it having originated well inside the Reserve, it was presumably the work of incendiaries. The burning of another 1,800 acres in the same forest (Gondwakri) was actually traced to an incendiary—a Gond—who was convicted and sentenced to three months' imprisonment—a punishment which is perhaps hardly adequate in respect to a crime which it is easy to commit, but exceedingly difficult to prove.

4.—*Grazing and Fencing.*

46. *Light-Grazing in the Demarcated State Forests.*—This form of grazing was permitted during the year in the State Forests of Akola, Basim, Buldana and Wun only.

The number of cattle that thus grazed during the monsoon months was 36,013 against 72,959 in the previous year. The principal decrease occurred in Wun, where grazing was confined during the year to the three forests of Gondwakri, Kharad, and Anjankher. Roughly, the number of cattle permitted to graze within any particular State Forests appears to have been in the following ratio.—

Akola ...	Ghatbori—1 head of cattle	to 4	acres.
	Loni-Bhongaon do.	to 1½	do.
Buldana ...	Gerumatergaon do.	to 4½	do.
	Amdari do.	to 3½	do.
Basim ...	Gahuli do.	to 4	do.
	Penganga do.	to 5	do.
	Rui do.	to 3	do.
Wun ...	Gondwakri do.	to 6	do.
	Kharad do.	to 3½	do.
	Anjankher do.	to 8	do.

The divisional officers of all four Districts are unanimous in condemning the practice of "light-grazing," and dwell on the injury that has been caused to the State Forests by a concession of which the original motive, as shown in the

records of the Conservator's office, was purely and simply to make money, and to improve, by extraneous means, the financial status of Reserves that are not susceptible, in their present condition, of supplying the market with either timber or fuel.

The concensus of opinion on this subject of "light-grazing" is to the following effect.—The condition of the South Berar forests is one of extreme poverty, and their improvement is not compatible with heavy grazing. It is impracticable to so regulate grazing as to distribute it equally over a given area. The difference is not one of degree, but one of extent. With 20,000 cattle the extent of area heavily grazed over may aggregate five square miles, with half that number of cattle it may not exceed two square miles. It may be comparatively small, or it may be comparatively large; the important fact remains that it is never absent, and that the principle of "light-grazing" is a mischievous unreality, the application of which to the poor open forests of South Berar has had the worst results.

The Conservator has seen this for himself in the case of the Wun forests, and Mr. Dansey's observations are confirmed by those of Mr. Whittall, and by those of the divisional officers themselves.

Orders have been issued to put a stop to all grazing within the Demarcated State Forests, except in those cases—very few, it is hoped—where undoubted hardship would ensue to the surrounding populations. Exceptions are only to be feared in West Berar where no permanent grazing lands have, as yet, been set apart for the people, whose cattle have consequently, by the unrestricted spread of cultivation, become in certain localities more and more dependent on the Government timber Reserves.

47. *Grazing in the District Reserved and Unreserved Forests.*—It is more than doubtful if this subject is treated here in its proper place. There is no attempt to protect these tracts from cattle grazing. On the contrary, large areas are mainly intended for the pasture of cattle.

The number of cattle that paid dues for grazing within this class of forest was 1,395,603 against 1,380,460 in the previous year, showing an increase in favour of the year of 15,143 head. This increase occurred solely in Wun and Akola, amounting to 41,904 in the former case, and to 45,896 in the latter District.

The number decreased in Basim by the very large aggregate of 47,461 head, in Buldana by 14,925, in Ellichpur by 8,449, and in Amraoti by 1,822.

The large decrease in Basim has not been properly explained. The divisional officer attributes it in part to the difficulty of control presented by the "free-grazing-lands;" in part to the possibility of the pass system of grazing not having been properly understood by the people in the previous year, who are supposed by him to have taken out passes under circumstances when this was not necessary, as, for instance, for cattle grazing on the "free-grazing-lands" But these "free-grazing-lands" occur in Akola likewise, where there has been, on the contrary, a marked improvement in the revenue under this head.

The Buldana Officer gives no explanation, merely dwelling on the difficulties to proper supervision presented by the "free-grazing-numbers" under actual conditions of establishment. This is doubtless very true, but the same difficulties existed in the previous year.

In Ellichpur, the decrease is all under "sheep and goats," which are stated not to have arrived from the Central-Provinces in the usual numbers.

48. The system of permitting owners of cattle to graze on passes subject to small annual fees, as opposed to the old practice of auctioning the right of pasture to contractors, who then charged the people what they liked, has continued to work in the interests of the people, who no longer suffer from the tyranny of a selfish monopoly

But regarded from a Departmental point of view the new order of things has burdened the establishment with duties and responsibilities with which, at its present strength, it is not well able to cope. The obstacles to control presented by the pass system, tangible enough in Ellichpur, Amraoti, and Wun, are increased fourfold in Basim, Buldana, and Akola by the presence of so much "free-grazing-land" in the last named Districts—a state of things that suggests to whole communities the folly of taking out passes under circumstances which hedge illicit grazing with so many natural safeguards. Under the old farming system the contractors charged such high rates as to make illicit grazing, within certain limits, an endurable evil; narrowing those limits, however, by the agency of reliable watchers. We have taken over their large business without increasing the establishment by one man.

Apart from an increase in the establishment, but connected with it, improvements are required in the existing methods of issuing and checking passes, dealing with illicit grazing, &c., on the basis of an uniform course of procedure for the whole Province.

5.—*Natural Reproduction.*

49. The subject of Natural Reproduction has been treated at length in Appendix B. This is in conformity with the instructions contained in para. 5 of the Resolution of the Government of India on last year's Progress Report.

6.—*Artificial Reproduction and Cultural Operations.*

50. The detail of these works is shown in Form No. 52.

51. The 50 acres of experimental plantation in the Pathrot Reserve (Wun), commenced in 1887-88, were abandoned as a failure. The rats devastated it, and its protection and watering involved an outlay disproportionate to the results obtained. The cost of maintenance alone, during the six months previous to its abandonment, amounted to Rs. 205. The total outlay on those 50 acres has been Rs. 2,571.

52. The officer in charge of the Ellichpur Division has been directed to report in detail on the present condition of the old Melghat teak plantations. Many of these are undoubted failures, and it is questionable whether the whole of them should not be written off the registers Abandoned years ago, so far as any special form of maintenance is concerned, often indifferently stocked, and in all cases absorbed in the adjoining Reserve to the degree of having no recognizable lines of separation, it seems to the Conservator that these old plantations are now out of place in the registers and may, with the sanction of Government, well be written off.

53. Under *Cultural Operations* the following works were undertaken during the year:—

(*a*) *In Ellichpur*:—

The Improvement Fellings already referred to in paragraph 24 under the provisions of the Raipur-Makhla Working Plan.

In the Bairagarh Reserve 5 acres of abandoned fields at Malur, and 5 acres at Betul, were experimented upon as follows:—

One part was entirely ploughed up and sown broadcast with teak, nim, bamboo, babul and hilda seed; one part was ploughed up in strips 15 feet apart, and sown broadcast with seed of the same species; one part was left fallow and sown over in the same way.

It is too soon to report on this operation Much of the teak seed will it is said, probably germinate during the rains of 1889-90. But the circumstance of the bamboo and hilda seed not having germinated at all would

seem to show that this seed was originally bad. However, the nim and babul seed is stated to have come up in profusion on the ploughed areas, and to have thriven in the first instance, although a great number are reported to have been killed, later on, by frost, or to have been injured by hares and porcupines. A quantity of the teak seed had been eaten up by rats. A few bamboo roots buried in pits, had sent up healthy shoots, and this operation is well spoken of.

(b) In Amraoti:—

In the Chirodi State-Forest of the Amraoti Hills 353 acres were ploughed up in lines 15 feet apart, and sown broadcast with 35 maunds of Burma bamboo seed. The young plants are reported to have come up well in the first instance, but to have all died off from drought as early as January last. This work cost Rs. 355. The officer in charge has been directed to report in detail on the cultural operations of previous years, in regard to which the registers show a total area of some 4 square miles.

(c) In Akola.—

49 acres of the Loni-Bhongaon Reserves were sown broadcast with babul seed at a cost of Rs. 5, and with good results And previous operations of the kind are reported to be a success. Sixty-six acres are mentioned as having been operated over in the District Reserves, but in what connection is not stated. Altogether Rs. 47 were expended under this head. The officer in charge has been directed to report in detail on all previous cultural operations in Akola.

(d) In Basim:—

Operations were confined to the Rui State-Forest, of which 261 acres were ploughed in belts 15 feet apart, at a cost of Rs 105 This area is to be stocked with seed during the rains of 1889-90. The officer in charge has been directed to report in detail on the cultural operations of previous years, the total area of which is put down at 6½ square miles.

(e) In Buldana:—

In accordance with Conservator's orders, the further collection of seed for broadcast sowing was put a stop to. Only such seed as remained in stock was sown in this way, or some 10 maunds in all; *viz*, 2 maunds of seed in the Gerumatergaon State Forest, 2½ in the Amdari State-Forest, and 6 in the District Reserves. The area thus sown over is not given. Writing in reference to the cultural operations of previous years—principally broadcast sowing over unprepared ground—the officer in charge reports them to be a total failure.

(f) In Wun:—

Rupees 279 were expended in preparing ground for the reception of seed. In the Kharod Reserve 400 acres were thus operated over. Seed was also sown broadcast in prepared plots of this forest, as also of the Pathrot and Anjankher Reserves. But the total area thus operated over is not given, and no mention is made in reference to the success of previous re-stocking operations (covering an area of 866 acres) which are, however, understood to have had no result.

54. The officers in charge of all Divisions have been directed to report in detail on this subject with a view to writing off unsuccessful operations.

55. The ill-success that has hitherto attended our efforts to re-stock and improve the Berar forests artificially is, there can be little doubt, in a measure due to want of system, as also to the circumstance of local sylvicultural conditions never having been properly appreciated. System and method can only be secured in one way, and that is by placing the management of our Reserves under the iron rod of authoritative Working-Plans, prepared by experts in these matters, and sanctioned by Government after the fullest consideration of their provisions and proposals. And if these same Working-Plans are found not to put a stop to mere experiments, their authors should certainly know how to

confine the latter within rational limits, and to restrict them to the requirements and practical possibilities of each case. Reference is, however, here invited to the remarks made in para. 26.

7.—*Experiments and Exotic Trees.*

56. The two date plantations at Ellichpur are reported to contain some 700 plants. Many died off during the year, eaten up by white ants, but were replaced. Although in appearance not so flourishing as could be desired, it is hoped that, with the coming monsoons, these plants may make a spurt which will ensure their future. Rs. 101 were expended in this connection.

57. The 50 Malta lemon plants received from Etawa, and planted out at Ellichpur in 1886, are doing well, having reached a height of some 16 feet.

8.—*Communications and Buildings; Wells, &c.*

58. Appendices C and D show in detail the works executed under this head in the Ellichpur Division, both those executed in the Forest Department, and those arranged for in the Public Works Department; while Appendix E is a map illustrating the progress of road-work in the Melghat forests of Ellichpur. Arrangements will be made for showing in next year's Report all the works of the Circle coming under this head, and in greater detail than has been found possible this year.

59. The road-work is all confined to the Melghat hills of Ellichpur. Outside this region the forests are, in general, sufficiently accessible by means of old cart tracks to render further facilities of the kind unnecessary, at least pending the restoration of the forests and the occasion of working them on an important scale. For reasons of a corresponding nature, the other works under this heading have hitherto mostly belonged to the Ellichpur Division.

60. The opening out of the 1,534 square miles of difficult hilly country which constitutes the Melghat forest region of Ellichpur was commenced in 1874, and has continued ever since. Owing to the stony, hilly character of the ground, scarcity of labour, and an unhealthy climate, the progress has necessarily been slow and the cost great. But here the fact should not be overlooked that these roads serve other than purely Departmental purposes: they open out a vast tract of country that had hitherto been almost inaccessible from the plains, and are in this way an immense boon to the spreading agricultural interests of the Melghat Taluk.

61. In the present year 24 miles of road were completed in the Melghat by Departmental agency. The Makhla-Biba road was finished, and 4 miles of the Raipur-Jarida road executed. More could not be accomplished owing to sickness among the labour gangs. The result, notwithstanding, compares favourably with previous years. The cost of these 24 miles of new road was Rs. 10,448, while Rs. 1,261 were expended on the repair of 191 miles of existing communications. Having regard to the heavy rainfall, and the nature of the country, which lends itself easily to landslips, the cost of repair seems sufficiently moderate.

62. The road-work executed by the Department outside the Melghat in Ellichpur was confined to petty repairs.

63. Among buildings we have to notice the completion, during the year, of 3 new rest-houses, 2 of which in the Melghat, and 1 in the Pathrot State Forest of Wun; the construction of 4 new Thanas, and 1 new Naka. The out-houses of the Conservator's bungalow at Chikalda, previously in a ruinous condition, were re-roofed and partly re-constructed at a cost of Rs. 536. Petty repairs were effected in the case of numerous Thanas and Nakas, principally in the Melghat.

64. Four new wells were sunk in the Melghat, and 17 wells cleaned out in the same Taluk.

65. With reference to forest works executed in the Public Works Department, the Executive Engineer, Melghat Roads Sub-Division, reports 36¾ miles of the Gugumal Forest Road to be "under construction," and one anicut "in progress"; but nothing completed during the year.

66. Regarding the request made by the Government of India that an account should be given of what has been done, or of what is contemplated, in connection with the scheme of introducing portable tramways, it has to be observed that while nothing has been done hitherto in that relation, circumstances make it improbable that anything will be done hereafter, or at least for a very long time to come, towards adopting this means of exporting forest produce from the Berar Forests. None of the State-Forests in South Berar contain, as yet, anything to export; and the forests of the Melghat cover a difficult country in which suitable lines of tramway would, it is thought, be impracticable; apart from which fact the apparent resources of the Melghat are too limited and too inferior in value to justify the supposition that a tramway would be just now, or even in the near future, anything but a ruinous undertaking. A larger capital has perhaps already been sunk in these forests, in the shape of roads, than is warranted by their present value, whatever their prospective value may turn out to be.

CHAPTER IV.—Yield and Working.

1.—*Removal of Produce by Government Agency.*

67. If we except 380 cubic feet of teak removed for Departmental purposes of construction, there was no extraction of produce by Government agency; and the particulars given in that relation in last year's Report are out of place. In Berar, all the produce intended for the market is removed from the forests by the purchasers themselves.

2.—*Removal of Produce by Purchasers.*

68. The full particulars of the out-turn are shown in Forms 54 and 55. But before referring more closely to the subject of the present year's yield, it will be necessary to enter into a few explanations, without which the statements and comparisons of results might not be properly understood.

69. Except in Ellichpur, the produce from the District Reserves and Unreserved Forests is not kept distinct. The reasons for this are explained in paragraph 70 of last year's Report. Pending the reorganisation of the Berar forests, and the changes in administration which must ensue, it seems inexpedient to attempt improvement in this respect.

70. Except in the case of the Demarcated State-Forests, it has not been found possible to classify the fellings which, in the Unreserved Forests at least, are not conducted on any scientific system.

71. It has been already remarked that the particulars given in last year's Report in respect to the working of the Raipur-Makhla blocks under the sanctioned Working-Plan for that Circle are inaccurate. Properly speaking, all the fellings executed during that year in the Ellichpur Demarcated State-Forest should have been recorded as "Clearances." This has accordingly been done in the comparative abstract for the present year.

72. The outturn from the District Reserves and Unreserved Forests is, if we except Ellichpur, founded on very imperfect records—records supplied to a great extent by Tahsildars from the reports of village officials. In Amraoti the

outturn of timber and firewood is farmed to contractors. Elsewhere, the whole standing crop of a Babul-Bun is sold by auction, and the outturn from this source not recorded. With the reorganisation of the Berar forests, this backward state of things should, in a great measure, disappear.

73. Reducing factors for the conversion of charcoal into its corresponding volume of firewood do not appear to have been hitherto determined for the different Districts of Berar, and this produce is accordingly, as a rule, shown separately. The outturn of timber and firewood, as also of charcoal, has, again, in the majority of cases, been calculated from cart-loads, head-loads, donkey-loads, &c., &c, with the help of reducing factors that are necessarily rough indicators of the volume actually exported.

74. Generally speaking, the quantities of minor produce are unobtainable, or, if furnished, unreliable for other reasons than those given above. As a rule, these products are farmed out and very appropriately so, but it is evidently not in the interest of the lessees to communicate to us the extent of their gains.

75. Most of the firewood consumed by the people is obtained by them, free of charge, in the form of head-loads from the Unreserved Forests and District Reserves. There are no means of determining the outturn in this connection.

76. Mr. Whittall made arrangements for recording in this year's Report the tonnage of grass consumed by cattle in the process of grazing. Doubtless, this constitutes a very important part of the outturn from the Berar forests; but to the present Conservator it seemed inexpedient to record quantities that must, in the nature of things, contain so many elements of pure speculation.

77. As remarked further back, the Demarcated State-Forests of Berar are not susceptible, in their present deteriorated condition, of doing much towards supplying the market; and such fellings as take place within this class of forest are, as a rule, all minor operations intended to improve the growing crop, the cutting back, for instance, of crooked and diseased teak stems, and the extraction of dead material In the Melghat of Ellichpur alone do we find this state of things much improved upon by other sources of revenue. In South Berar, conditions are so bad, the ground so indifferently covered, the soil so poor, that it is not often expedient to thin out even the diseased and misshapen stems, and the outturn is then reduced to nothing, or to next to nothing.

78. There is hardly any timber remaining in Akola and Amraoti, the people of which Districts are, therefore, largely dependent on Ellichpur.

79. Basim, Buldana, and to some extent Wun, find it advantageous to procure a portion of their requirements in teak timber from the Nizam's Dominions, where it is found more abundantly than in Berar, or is to be procured cheaper, and without the fuss attaching to an economical administration.

80. Doubtless, a considerable quantity of timber is still obtained by the villagers of Berar from off their fields, and in the case of Wun and Basim from the numerous lessees of forest-covered lands (Izardars). Reference has also, in a former place, been made to the alleged practice of taking up waste land on the pretence of cultivating it, but with the real object of making a profit out of the timber.

81. The Wun Forest Officer makes special allusion, in his Report of the year, to the restrictions placed by the Deputy Commissioner on the further extraction of teak and bamboos in that District—restrictions considered necessary in view of the too rapid depletion of the District Reserves and Unreserved Forests of Wun.

82. The following is a comparative statement of the outturn of timber from all classes of forests :—

Division or District	Kind of Timber	1886-89.		1887-88.		Difference in favor of or against the Year.	
		Demarcated State Forests.	District Reserves and Unreserved Forests.	Demarcated State Forests.	District Reserves and Unreserved Forests.	Demarcated State Forests.	District Reserves and Unreserved Forests.
Ellichpur	Teak cft.	24,028	189,158	41,407	180,598	— 17,379	+ 8,560
	Miscellaneous. cft.	2,768	150,403	8,499	164,342	— 5,731	— 13,93[illegible]
	Total ..	26,796	339,561	49,906	344,940	— 23,110	— 5,37[illegible]
Amraoti	Miscellaneous. cft	...	Farmed (Rs. 129)	117	Farmed (Rs 154)	— 117	Farmed — (Rs 25)
Akola ..	Miscellaneous. cft	406	550 (Rs. 56)	4,396	446 (Rs 107)	— 3,990	+ 104 — (Rs. 21)
Buldana	Teak cft.	..	43,528	...	...	...	
	Miscellaneous. cft.	716	33,884	224	37,765	+ 492	+ 39,647
	Total ..	716	77,412 (Rs. 11,235)	224	37,765 (Rs. 5,567)	+ 492	+ 39,647 + (Rs. 5,568)
Basim	Teak cft	...	25,553	75 goles.	2,556 goles.	— 75 goles	+ 25,553
	Miscellaneous. cft	12	29,805	12	17,083	...	— 2,556 goles + 12,722
	Total ...	12	55,358 (Rs 8,090)	75 goles 12	2,556 goles. 17,083 (Rs. 3,748)	— 75 goles ...	+ 38,275 — 2,556 goles. + (Rs. 4,342)
Wun ...	Miscellaneous. cft	400	945 (Rs. 304)	315	8,070 (Rs. 1,731)	+ 85	— 7,125 — (Rs. 1,427)
Total	Teak cft.	24,028	258,239	41,407 + 75 goles.	408,304 + 2,556 goles.	— 17,379 — 75 goles	+ 65,522
	Miscellaneous. cft.	4,302	215,587	13,56[illegible]		— 9,261	— 2,556 goles.
	Grand Total cft.	28,330	473,826	54,970 + 75 goles.	408,304 + 2,556 goles.	— 26,640 — 75 goles.	+ 65,522 — 2,556 goles.

83. The Demarcated State-Forests show a decrease in the outturn of timber, amounting to some 50 per cent; almost all in Ellichpur. This is principally due to the restrictions placed by the sanctioned Working-Plan on timber operations within the Melghat State-Forests, whereby fellings are now practically confined to 3½ square miles of the Raipur-Makhla blocks, to hollow unsound 1st class teak trees only, and to such smaller trees of the same species as are of a more or less worthless and, therefore, unsaleable character. Under the provisions of the same Plan, only such inferior species are now removed over the same area as interfere with the prospects of the teak. If this Plan undergoes revision in the sense suggested by the Conservator—see paragraph 25—there should be a speedy improvement in the outturn from this source. In connection with last year's outturn, it has, however, to be noted that the construction of the Asegaon bridge in Ellichpur called for an exceptional supply of teak timber in that year.

84. The outturn of teak from the Unreserved Forests of Ellichpur shows an increase, during the year, of 8,560 cubic feet, while a corresponding decrease of some 14,000 cubic feet occurred in the export of miscellaneous species. It is not of much use making comparisons of outturn in respect to the District Reserves and Unreserved Forests of other Divisions, and that for reasons given further back (para. 72). Apart from the fact that the outturn of timber is not in every case known for these forests, or is only shown in part, the quantities are not always given in cubic feet, or the teak distinguished from other timbers. However, judging merely by the revenues from timber, a considerable increase would appear to have taken place in the outturn from the District Reserves and Unreserved Forests of Buldana and Basim, and a large decrease in Wun, which last circumstance is explainable by what has been said in paragraph 81.

85 The following is a comparative statement, in the same form, of the quantities of firewood and charcoal for which dues were paid to the Department —

Division or District	Kind of Produce	1888-89		1887-88		Difference in favour of or against the Year	
		Demarcated State Forests	District Reserves and Unreserved Forests	Demarcated State Forests	District Reserves and Unreserved Forests	Demarcated State Forests	District Reserves and Unreserved Forests
Ellichpur	Firewood cft	.	118,932	...	116,758	...	+ 2,174
	Charcoal „	.	149,113	..	136,790	...	+12,623
	Total .	.	268,345		253,548	...	+14,797
Amraoti	Firewood cft	1,072	75,717	15,612	Farmed	—14,540	
	Charcoal „	.	131	168	Do.	— 168	. .
	Total	1,072 (Rs 58)	75 848 (Rs 14,549)	15,780 (Rs 486)	Farmed (Rs 18,838)	—14,708 —(Rs 428)	—(Rs 4 298)
Akola	Firewood cft	80,308	148,435	583	1,972	+79,725	+146,463
	Charcoal „		6,229	...	14	...	+ 6,215
	Total	80,308 (Rs 3 816)	154,664 (Rs 7,089)	583 (Rs 2,023)	1,986 (Rs 11,243)	+79,725 +(Rs 1,793)	+152,678 —(Rs 4,154)
Buldana	Firewood cft	11,115	53,680	15,239	60,032	—4,124	—6,352
	Charcoal „						
	Total	11,115 Rs 342)	53,680 (Rs 1,433)	15,239 (Rs 487)	60,032 (Rs 1,596	—4,124 —(Rs 145)	—6,352 —(Rs 163)
Basim	Firewood cft	3,766	74,023	10,780	48,225	—7,014	+ 25,798
	Charcoal „	..	2,654		325	.	+ 2,329
	Total ..	3,766 (Rs 130)	76,677 (Rs 2,229)	10,780 (Rs. 298)	48,550 (Rs. 1,375)	—7,014 —(Rs 168)	+28,127 + (Rs 854)
Wun	Firewood cft	10,528	8,564	490	5,682	+10,038	+2,882
	Charcoal „		504	..	1,176	.	— 672
	Total	10,528 (Rs. 141)	9,068 (Rs. 377)	490 (Rs 9)	6,858 (Rs 207)	+10,038 +(Rs 132)	+2,210 + (Rs. 170)

86 In connection with the above statement, it has to be borne in mind that the actual outturn of firewood from the District Reserves and Unreserved Forests is not ascertainable, since no restriction is placed on the export of head-loads of this produce for the *bona fide* use of the villagers. This tabular statement is, as regards these two classes of forest, only so far useful that it indicates the quantities on which revenue was realized; and even then, for reasons given further back, the quantities are not, if we except Ellichpur, to be relied upon, nor are they susceptible of being compared with those of previous years except through the medium of the revenue realized.

87 The Demarcated State-Forests of Ellichpur, separated from the market by extensive open forests, naturally find no outlet for this sort of produce The Demarcated State-Forests of other Districts show larger out-turns, in the cases of Akola and Wun, of a value of Rs. 1,793 and Rs 132 respectively In the three other Districts we see a decrease of outturn represented by an aggregate value of Rs. 711.

88. From the District Reserves and Unreserved Forests the outturn of fuel was larger in Ellichpur by 14,797 cubic feet, of which 12,623 cubic feet were in the form of charcoal.

The other Districts show a total decrease in this respect representing a value of close on 7,600 Rupees, the more important fallings off having taken place in Amraoti (Rs. 4,298), and in Akola (Rs. 4,154). Basim shows an increase corresponding to Rs. 854, and Wun an increase equal to Rs. 170. The decrease in Akola is explained as not being due to lack of demand, but to restrictions placed on the further auctioning of Babul-Ban crops in the Balapur Taluk. In Amraoti the nakas connected with this source of revenue are farmed out, and realized less than in the previous year.

89. The following is a comparative statement of the outturn in bamboos :—

District or Division.	1888-89.			1887-88.			Difference in favour of or against the Year.		
	Demarcated State Forests.	District Reserves and Unreserved Forests.	Total.	Demarcated State Forests.	District Reserves and Unreserved Forests.	Total.	Demarcated State Forests.	District Reserves and Unreserved Forests.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Ellichpur ...	1,733,607	1,064,902	2,798,509	1,373,394	876,591	2,249,985	+360,213	+188,311	+548,524
Amraoti ...	...	275	275	...	...	...	...	+275	+275
Akola... ...	...	549	549	...	35	35	...	+514	+514
Buldana ...	...	...	...	...	...	...	...	...	...
Basim ...	1,500	450	1,950	300	275	575	+1,200	+175	+1,375
Wun	18,637	41,800	59,837	33,925	48,850	82,775	−15,288	−7,050	−22,938
Total ...	753,144	1,107,976	2,861,120	1,407,619	925,751	2,333,370	+345,525	+182,225	+527,750

90. The Melghat forests thus turned out 5½ lakhs more bamboos than in the previous year, showing plainly enough that a rise in rates (from Rs. 1 to Rs. 1-8 per 100) has not conduced to a fall in the export of this much sought for produce. The decrease in the outturn for Wun is explainable by what has been said further back in paragraph 81. Ellichpur is the only District of Berar in which we find the bamboo completely at home.

91. Appendix A. is a comparative statement showing the number of cattle that grazed in the several classes of forests during the year. This has been fully discussed in paragraphs 46 and 47, Chapter III, and it is unnecessary to dwell further on the subject.

92. The outturn in Minor Produce increased in value during the year by Rs. 2,372. There was a small increase under all headings.

93. As the Melghat produces far the greatest share of the more important products, the following table compares for the Ellichpur Division the yield of the present with the last year :—

Produce.	Bairagarh Reserve.		Gugamal Reserve.		District Reserves.		Melghat Unreserved Forests.		Total.	
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.
Teak timber ... ... cft.	40,352	24,028	1,055	...	...	...	190,599	189,158	222,006	213,186
Timber of miscellaneous species „	8,498	3,768	...	...	...	...	164,342	150,403	172,841	153,171
Firewood ... ... „	...	...	...	...	3,129	5,894	113,629	113,038	116,758	118,932
Charcoal ... ... „	...	...	...	...	...	...	136,790	149,413	136,790	149,413
Bamboos ... ... No.	843,584	1,078,606	5,27,810	6,54,201	...	...	876,591	1,064,902	2,249,985	2,797,709
Grass (cut) ... Tons.	...	...	...	...	...	442	5,243	5,180	5,243	5,622
Lac ... „ ... „	⅕	½	...	...	...	...	5	7	5⅕	7½
Leaves (teak) ... ... „	...	...	...	...	...	...	333	224	333	224
Roots and fruits ... ... „	107	26	½	½	...	...	752	767	859½	803½
Gums ... ... „	...	...	...	...	...	...	4	20	4	20
Miscellaneous minor produce... „	...	...	½	...	...	...	17	11	17½	11

3.—*Free Grants of Forest Produce.*

94.—The following is a comparative statement of Free Grants made during the year —

1888 89.							1887 88		
				Produce granted.			Produce granted.		
Authority under which granted.	Name of Division or District.	Name of Grantee.	Purpose for which granted	Description	Quantity	Value	Description	Quantity.	Value
						Rs			Rs
Resident at Hyderabad	Ellichpur	Officer Commanding 1st Field Battery, Hyderabad Contingent at Ellichpur.	For construction of new Artillery Lines at Ellichpur.	Teak timber	cft 1,243	435	...	.	
				Bamboos	No 800	12	...	...	
						447			
Resident at Hyderabad.	Amraoti	The public.	Feed of cattle at show held in Amraoti in 1888.	Grass	1 glas 300,000 or cart loads 600	225	...	...	..
Conservator of Forests, H A. D	Buldana.	Villagers of Botha, Kawargaon, Borkara, Khandala, Matergaon, Jhorga, and Hurni	For clearing boundary lines of Reserves	Grass	Cart loads 200	38	...	...	...
		Villagers of Buldana and Deulghat.	Do.	Do. ..	Head loads 156	2	...	...	
						40			.
Conservator of Forests, H A D.	Basim	Villagers of Bori and Kanah	For building purposes.	Teak timber	cft 407	161	Teak poles timber of miscellaneous species	No 155 Cft 115	
				Timber of miscellaneous species .	504		Firewood	52	
							Grass	Tons 70	35
					Total	873	.		35

4.—*Produce removed by Right-holders and under Concessions.*

95. There are no rights to forest produce in Berar and the only concessions are in respect to the extraction of head-loads of firewood, previously referred to, and the permission to graze, free of charge, 2 plough-bullocks for every 10 acres of cultivation. The last named concession only obtains in respect to Government grazing-lands (District Reserves and Unreserved Forests) in Ellichpur, Amraoti and Wun.

CHAPTER V.—Financial Results.

96. The financial results of the year compare as follows with those of the previous two years : —

Year.	Revenue	Expenditure	Surplus
	Rs.	Rs	Rs
1886-87 ...	3,26,447	1,71,510	1,54,937
1887-88 ...	4,06,247	1,83,160	2,23,087
1888-89 ...	4,08,192	1,69,295	2,38,897

The surplus of the previous year showed a considerable leap in advance of all previous years. It is satisfactory to see that the position thus acquired has not only been maintained, but that both the gross revenue and the surplus of the year under review are the highest on record for Berar, the surplus being Rs. 15,810 in excess of that for 1887-88, and Rs. 83,960 in excess of that for 1886-87.

97. The revenue was realised from the following sources :—

	1888-89.	1887-88.
	Rs.	Rs.
Timber	1,03,208	1,00,070
Firewood and charcoal...	37,881	43,591
Bamboos	42,654	34,589
Grass and grazing	2,03,912	2,08,667
Minor produce	17,954	15,582
Confiscated produce and waif ...	1,132	2,474
Miscellaneous sources	1,951	1,274
Total ...	4,08,192	4,06,247

98. During the year increases of revenue took place under :—

	Rs.
Bamboos	8,065
Timber	3,138
Minor produce	2,372
Miscellaneous sources	677
Total	14,252

While decreases took place under :—

Firewood and charcoal	6,210
Grass and grazing	4,755
Confiscated produce and waif	1,342
Total	12,307
Balance in favour of the year	1,945
Total	14,252

No explanations seem called for in respect to these results that have not already been given in the preceding chapter, under "Yield and Working."

99. The following statement shows the expenditure of the year compared with that of the previous year :—

Budget Heads.	1888-89.	1887-88.	Increase.	Decrease.
A.—Conservancy and Works.	Rs.	Rs.	Rs.	Rs.
I. Timber and other produce removed from the forests by Government agency ..	...	...	...	...
II. Timber and other produce removed from the forests by consumers and purchasers ...	21,364	21,775	...	411
V. Rent of leased forests and payments to shareholders in forests managed by Government.	17,120	17,120	...	...
VI. Live and dead stock	5,070	5,193	...	123
VII. Communications and buildings... ...	18,930	24,106	...	5,176
VIII. Demarcation, improvement and extension of forests	10,391	11,389	...	998
IX. Miscellaneous	1,750	1,377	373	...
Total of A.—Conservancy and Works ...	74,625	80,960	373	6,708
B.—Establishments.				
I. Salaries	76,305	85,093	...	8,788
II. Travelling allowances	13,201	11,736	1,465	...
III. Contingencies	5,164	5,371	...	207
Total of B.—Establishments ...	94,670	1,02,200	1,465	8,995
Grand Total of Expenditure ...	1,69,295	1,83,160	1,838	15,703

100. The expenditure thus decreased during the year by Rs. 13,865, the decreases of importance occurring under "Salaries" and "Communications and buildings." In regard to the former, it has to be observed that the controlling establishment was on a less expensive footing, two Deputy Conservators (Messrs. Rind and Ballantine) having left in the previous year, to be replaced by one Sub-Assistant only.

101. The surplus and deficit under the three great heads of accounts were as follows for the past three years:—

Sources of revenue and expenditure.	1886-87.		1887-88.		1888-89.	
	Surplus	Deficit.	Surplus.	Deficit.	Surplus.	Deficit.
	Rs.	Rs	Rs.	Rs.	Rs.	Rs.
I. Departmental timber operations.	..	...	..	.	...	...
II. Other revenue ...	2,05,720	...	2,85,430	...	2,93,154	...
III. Protection ..	...	50,783	...	62,343	...	54,257
Total	2,05,720	50,783	2,85,430	62,343	2,93,154	54,257

102. The financial results by classes of forests are compared as follows with those of the previous year:—

* 1.—*Summary of Financial Results by Classes of Forest.*

Classes of Forest.	Revenue.		Expenditure.		Surplus.		Deficit.	
	1887-88	1888-89,	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89
	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs
Demarcated State Forests ..	66,112	59,551	67,638	59,233	...	318	1,526	...
District Reserves and Unreserved Forests (excepting Ellichpur Unreserved Forests).	2,27,135	2,32,002	71,036	64,889	1,56,099	1,67,113	...	...
District Unreserved Forests of Ellichpur .	1,13,000	1,16,639	44,486	45,173	68,514	71,466	..	...
Total	4,06,247	4,08,192	1,83,160	1,69,295	2,24,613	2,38,897	1,526	
				Deduct deficit .	1,526	...		
				Net surplus .	2,23,087	2,38,897		

* In regard to this summary, it is necessary to observe that previous statements of the kind for this Circle appear to have been wrongly prepared. Referring, for instance, to the statement of last year (paragraph 83 of the Report for 1887-88), it will be noticed that, under "Class of Forest," "District Unreserved Forests" have been entered. This is a mistake, as can be gathered from the amount of revenue entered opposite, and which is merely the revenue of the "District Unreserved Forests of the Ellichpur Division." Notwithstanding, the expenditure opposite is not that corresponding to the "Ellichpur Unreserved Forests," even after an appropriate allotment of office expenditure (Directional and Divisional). In the same way, what has been entered as "District Reserved Forests" should have been "District Reserves and Unreserved Forests excepting the Unreserved Forests of Ellichpur." This is proved by the amount of revenue with which this class of forest has been credited in the statement Notwithstanding, the expenditure, as entered, is not reconcilable with a proper allotment of the expenditure incurred on this class of forest. And the same

2.—*Financial Results by Classes of Forest and by Divisions.*

Division	Classes of Forest	Revenue 1887-88	Revenue 1888-89	Expenditure 1887-88	Expenditure 1888-89	Surplus 1887-88	Surplus 1888-89	Deficit 1887-88	Deficit 1888-89
		Rs	Rs	Rs	Rs	Rs	Rs.	Rs	Rs.
Direction	Office	127	111	24,238	20,014	..	.	24,111	19,[illegible]
Ellichpur	Office	240	1,098	15,918	16,399			15,678	15,301
	Demarcated State Forests . . .	31,619	33,701	31,549	26,579	3,070	7,212		
	District Reserves ..	5,755	4,635	1,315	842	4,443	3,793	..	
	Unreserved Forests, Melghat ...	1,12 808	1,15,854	27,411	28,272	85,397	87,581		
		1,53,425	1,55,377	76,193	72,093	92,910	98,585	15,678	15,301
Amraoti ..	Office	10	12	7,692	4,531			7,682	4,519
	Demarcated State Forests	5,871	3,711	1,505	2,350	4,376	1,362		..
	District Reserves and Unreserved Forests	64,810	59,78[illegible]	6,334	6,001	58,476	53,779		
		68,691	63,503	15,621	12,891	60,754	55,131	7,682	4,519
Akola ..	Office .	2	2	7,506	2,949			7,504	2,949
	Demarcated State Forests	5,782	7,541	2,472	3,055	3,310	4,486		
	District Reserves and Unreserved Forests .	30,433	30,05	5,915	5,013	24,518	25,016	..	
		36,215	37,62	15,893	11,067	27,828	29,502	7,506	2,949
Buldana ...	Office	19	49	7,049	4,566			7,030	4,517
	Demarcated State Forests	7,564	5,748	2,641	2,532	4,943	3,216		..
	District Reserves and Unreserved Forests .	32,951	38,993	4,231	5,781	28,720	33,212	.	...
		40,554	44,790	13,921	12,879	33,663	36,428	7,030	4,517
Basim	Office	4	410	6,361	10,051	.	.	6,357	9,641
	Demarcated State Forests	1,835	2 689	4 [illegible]	4,673		.	2,468	1,984
	District Reserves and Unreserved Forests ...	32,655	30,905	3,025	3,906	29,630	26,999		.
		34,542	34,004	13,737	18,630	29,630	26,999	8,825	11,625
Wun ..	Office . . .	43	8	6,748	6,256			6,705	6,248
	Demarcated State Forests	10,252	5,646	8,540	6,783	1,712			1,137
	District Reserves and Unreserved Forests ...	62,398	67,129	8,969	8,682	54,129	58,447		..
		72,693	72,783	23,557	21,721	55,841	58,447	6,705	7,385
	Total .	4,06,247	4,08,192	1,83,160	1,69,295	3,00,624	3,05,092	77,537	66,195
				Deduct deficit		77,537	66,195		
				Net surplus .		2,23,087	2,38,897		

103. The first of the above two statements shows the financial status of the Demarcated State Forests, as also that of the Melghat open forests, in a more favourable light than hitherto. For an explanation of this attention is invited to the remarks contained in the foot note.

104. The revenues from the Demarcated State Forests underwent a small decrease during the year, amounting to Rs. 6,561, which is made up as follows:—

					Rs
Ellichpur	...	...	...	—	828
Amraoti	...	...	...	—	2,160
Buldana	...	...	...	—	1,836
Wun	...	...	...	—	4,606
Akola	...	...	...	+	1,759
Basim	...	...	...	+	804
Office	...	...	...	+	306

remark applies to the "Demarcated State Forests," the expenditure against which seems excessive, and not warranted by a just apportionment of the total outlay The course hitherto followed appears to have been this The total amount of provincial office expenditure having been divided into three equal shares, each class of forest, as given in the statement of the previous year, was debited with one such share, the consequence being an unequal and an unfair allotment. For instance, why should one class of forest in Ellichpur be burdened not only with a third share of the office expenses of that Division, but with a third of the office expenses of all the other Divisions in Berar, with which it has nothing whatever in common? Again, why should the comparatively small area of State Forests in Berar be debited with a whole third of the provincial office expenditure? That expenditure is incurred in correspondence, accounts, and in the control of the Conservator and his divisional officers, and should, it would seem, be apportioned in direct ratio with the amount of correspondence, accounts, and control necessitated by each Division, and by each class of forest in that Division, in other words according to the importance of the transactions in each case—an importance which can best be measured, for all practical purposes, by taking the sum of the expenditure and revenue (office excepted) in the case of each Division, and in the case of each class of forest in that Division. This has been done in the present instance, and the provincial office expenditure distributed accordingly. The result, of course, shows the demarcated State Forests in a much more favourable light, as also the open forests of the Melghat, both of which classes of forest appear to have been hitherto debited with an excessive share of the provincial office expenditure.

On the other hand, the District Reserves and Unreserved Forests show an increase of revenue for the year, aggreating Rs. 8,506, which is made up as follows :—

				Rs.
Amraoti	...	...	...	—3,030
Akola	...	...	...	— 374
Basim	...	...	...	—1,748
Ellichpur	...	...	...	+ 1,922
Buldana		...	...	+ 6,042
Wun	...	...	...	+ 4,731
Office	...	...	...	+ 963

105. No explanations seem called for in respect of the above figures that are not intelligible by the remarks made under " Yield and Working."

Adding all classes of forest together, the Amraoti Division alone has failed, in an important degree, to maintain its position of the year before.

CHAPTER VI.—General Remarks.

106. The season was not a healthy one, and both officers and subordinates suffered considerably from fever. In Ellichpur, 20 per cent. of the executive and protective establishments are reported to have attended hospital, few escaping without repeated attacks of fever. In Wun an officiating Ranger died from the same cause.

107. With a few exceptions, the executive and protective establishments are favourably mentioned by their divisional officers, Rangers Misriprasad, Shekh Rahman, Bhukan and Ramdial Singh coming in for special notice in this connection.

108. In the controlling staff, Mr. Prevost, Deputy Conservator, was very successful with his fire protection of the Melghat Reserves, and if the revenues of his Division did not increase it, is creditable that he succeeded in maintaining them at the exceptionally high figure of the year before.

Mr. Taylor, Officiating Deputy Conservator, was heavily handicapped with two Districts in his charge (Akola and Basim).

Mr. Wittinbaker, the Sub-Assistant Conservator lately appointed to Buldana, has shown a commendable zeal for his work.

109. Mr. Ganesh Narayan devoted his usual care and diligence to the conduct of the Conservator's office.

110. Appendix F shows the results of meteorological observations taken in various localities.

E. P. DANSEY,

Offg. Conservator of Forests,

Hyderabad Assigned Districts.

FORESTS.

ANNUAL FORM No. 49.—*Area of Demarcated State Forests*, 1888-89.

Division.	Range.	Civil District or Tehsil.	Name of Forest.	Area on 1st April 1888. Acres.	Area on 1st April 1888. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1889. Acres.	Area on 31st March 1889. Equivalent in square miles.	No. and date of Notification of addition or transfer.	Remarks.
Ellichpur ...	Bairagarh ...	Ellichpur ...	Bairagarh Reserve *a*.	272,049	425	...	...	272,049	425	Hyderabad Residency Orders Notification No. 14, dated 28th January 1889.	*a*. It having been discovered that these two Reserves had not been properly notified on the original occasion, they were gazetted again.
	Gugamal ...	Do.	Gugamal do. *a* ...	115,044	180	...	...	115,044	180	Do.	
			Chikalda do. ...	2,400	4	...	...	2,400	4		
			Total ...	389,493	609	...	...	389,493	609		
Amraoti ...	...	Amraoti ...	Chikhli Reserve ...	50,973	80	...	*b* 42,850	*c* 8,123	13	*c*. Hyderabad Residency Orders Notification No. 156, dated 16th July 1883.	*b*. Hitherto erroneously included as Demarcated State Forest, see Chapter I of Report.
	...	Do.	Mehdari do. ...	...	...	*d* 4,058	*e* 6	4,052	6	*d*. Hyderabad Residency Orders Notification No. 62, dated 16th March 1889.	
										e. Berar Secretary's No. 2517, dated 8th September 1888.	
			Total ...	50,973	80	4,058	42,856	12,175	19		
Akola ...	...	Akola ...	Loni Reserve ...	908	1	...	...	908	1	Hyderabad Residency Order Notification No. 13, dated 28th January 1889.	
	...	Do ...	Bhongaon do. ...	1,368	2	...	...	1,368	2		
	Ghatbori	Akola, Buldana, Basim.	Ghatbori do. ...	23,760	37	...	...	23,760	37		
		Akola ...	Mandwa do. ...	5,475	9	...	...	5,475	9		
	...	Do. ...	Borgaon do. ...	...	...	*f* 1,435	...	1,435	2		
			Total ...	31,511	49	1,435	...	32,946	51		
Buldana ...	Gerumatergaon.	Buldana ...	Gerumatergaon Reserve.	45,947	72	...	...	45,947	72		
	Amdari ...	Do. ...	Amdari do. ...	13,717	21	...	...	13,717	21		
			Total ...	59,664	93	...	...	59,664	93		
Basim ...	...	Basim	Pengunga Reserve ...	11,575	18	...	...	11,575	18	*g*. Hyderabad Residency Orders Notification No. 13, dated 28th January 1889.	
	...		Rui do. ...	6,647	10	...	...	6,647	10		
	...		Gahuli do. ...	9,507	15	...	...	9,507	15		
	Kinwat ...		Kinwat do. ...	52,558	82	...	...	52,558	82		
	...		Medsi do. ...	...	...	*g* 1,115	...	1,115	2		
	...		Mohoja do. ...	...	...	*g* 2,111	...	2,111	3		
	...		Chandas do. ...	...	...	*g* 3,016	...	3,016	5		
	...		Ekburji do. ...	...	...	*g* 172	...	172	...		
			Total ...	80,287	125	6,414	...	86,701	135		
Wun ...	Kelapur ...	Wun ...	Kelapur Reserve ...	40,289	63	...	...	40,289	63		
	Wun ...		Tiwsala do. ...	4,873	8	...	...	4,873	8		
	Yeotmal		Gondwakri do. ...	16,359	26	...	...	16,359	26		
			Kharad do. ...	15,514	24	...	...	15,514	24		
			Anjankher do. ...	7,634	12	...	...	7,634	12		
	Darwha ...		Loubehel do. ...	9,187	14	...	...	9,187	14		
			Pathrot do. ...	2,889	4	...	...	2,889	4		
			Total ...	96,745	151	...	...	96,745	151		
			Grand Totals ...	708,673	1,107	11,907	42,856	677,724	*h* 1,059	...	*h*. Difference of one square mile in this column is due to small fractions ignored.

FORESTS.

Annual Form No. 49.—*Area of District Reserved and Unreserved Forests*, 1888-89.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1888. Acres.	Area on 1st April 1888. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1889. Acres.	Area on 31st March 1889. Equivalent in square miles.	No. and date of Notification of addition or transfer.	Remarks.
1.—District Reserved Forests.											
Ellichpur ...	...	Ellichpur.	Woods ...	1,390	2	...	...	1,390	2		
			Ramnas ...	63	...	...	...	63	...		
			Grazing lands	34,536	54	...	...	34,536	54		
			Total ...	35,989	56	...	...	35,989	56		
Amraoti ...	...	Amraoti.	Woods ...	10,948	17	a 425	b 4,026	7,347	11	© Berar Secretary's No. 1073-R., dated 30th April 1888. † Commissioner's No. [illegible], dated 4th September 1888 and No. 6692, dated 22nd December 1888. ‡ Commissioner's No. 5110, dated 19th September 1888. $ Berar Secretary's No. 1073-R., dated 30th April 1888, and Commissioner's No. 5110, dated 19th September 1888.	a. Correction of area. b. 4018 transferred to State Forests on account of Melghari Reserve, 8 © transferred to grazing lands. c. 4948 transferred from State Forests on account of Amraoti Hills Reserve. [illegible] correction of area. 438 † transferred from open forests. d. ‡ Transferred to grazing lands. e. 37,[illegible]92 transferred from State Forests on account of Amraoti Hills Reserve. $ 307 transferred from woods and ramnas. f. Correction of area.
			Ramnas ...	7,856	12	c 5,766	d 99	13,523	21		
			Grazing lands	131,424	206	e 38,009	f 931	169,[illegible]2	265		
			Total ...	1[illegible],228	235	44,200	5,[illegible]36	190,072	297		
Akola ...	...	Akola ...	Reserved Forests.	49,199	77	a 575	b 2,803	46,971	73	...	a. Correction of area. b. 1368 correction of area. 1,435 transferred to State Forests on account of Borgnon Reserve.
Buldana ...	...	Buldana..	Do. ...	5,132	8	...	a 100	5,032	8	...	a. Correction of area.
Basim ...	...	Basim ...	Do. ...	18,828	29	...	a 9,681	9,147	14	* Notification No. 13, dated 28th January 1889.	a. 6,414 * transferred to State Forests, 3,267 correction of area. *
Wun ...	...	Wun ...	Woods ...	2,695	4	...	...	2,695	4		
			Ramnas ...	16,476	26	...	...	16,476	26		
			Total ...	19,171	30	...	...	19,171	30		
	Total of District Reserved Forests ...			278,547	435	[illegible],775	16,940	306,382	478		
2.—District Unreserved Forests.											
Ellichpur	Melghat Taluk Remainder of District.	Ellichpur.	...	586,275	916	...	...	586,275	916		
				488	1	...	...	488	1		
	Akot Taluk land in Melghat Hills. Jalgaon Taluk land in Melghat Hills.	Akola...	...	1,[illegible]20	2	...	...	1,[illegible]20	2		
				4,476	7	...	...	4,476	7		
			Total ..	592,699	926	...	...	592,699	926		
Amraoti ...	...	Amraoti...	...	17,900	28	a 3,985	b 322	21,561	34	...	a. Cultivation abandoned. b. 29 Given up for tank. 293 Given up for cultivation. 322
Akola ...	...	Akola ...	...	90,236	141	c 22,145	d 1,653	110,728	173	...	c. 3,393 Cultivation abandoned. 18,752 Correction of area. 22,145 d. Given up for cultivation.
Buldana ...	...	Buldana..	...	111,337	174	e 5,125	f 986	115,476	180	...	e. Cultivation abandoned. f. Given up for cultivation.
Basim ...	...	Basim ...	...	410,152	641	g 2,758	h 16,643	396,267	619	...	g. Cultivation abandoned. h. Given up for cultivation.
Wun ...	...	Wun ...	...	425,274	664	i 15,806	j 4,377	436,703	682	...	i. 8,472 Blocks in Khalsa villages classified and added. 469 Correction of area. 6,515 Cultivation abandoned. 350 Reserved by Govt. 15,806 j 312 Correction of area. 4,065 given up for cultivation. 4,377
	Total of District Unreserved Forests ...			1,647,598	2,574	49,817	23,981	1,673,434	2,614		

FORESTS.

ANNUAL FORM No. 50.—*Prosecutions for breaches of Forest Rules during* 1888-89.

Forest Division and Civil District.	Cases pending from 1887-88.	New cases of the year.						Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.			Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
ELLICHPUR.															
Demarcated State Forests ...	...	...	6	...	...	6	6	6	27	...	...	6	27	...
District Reserved Forests ...	...	...	23	...	...	23	23	18	21	5	8	23	29	...
Unreserved Forests	...	...	...	...	122	122	122	102	126	19	43	121	169	1
Total ... 1888-89 ...	...	...	29	...	122	151	151	126	174	24	51	150	225	1
Total ... 1887-88 ...	...	3	12	...	93	108	108	89	153	19	25	108	178	...
AMRAOTI.															
Demarcated State Forests ...	...	...	...	...	1	1	1	...	...	1	1	1	1	...
District Reserved and Unreserved Forests...	...	...	27	1	5	33	33	25	42	7	7	32	49	1
Total ... 1888-89 ...	...	...	27	1	6	34	34	25	42	8	8	33	50	1
Total ... 1887-88 ...	3	2	52	14	11	79	82	70	124	12	24	82	148	...
AKOLA.															
Demarcated State Forests ...	...	1	4	...	...	5	5	5	7	...	...	5	7	...
District Reserved and Unreserved Forests	...	...	44	5	1	50	50	39	48	11	27	50	75	...
Total ... 1888-89 ...	...	1	48	5	1	55	55	44	55	11	27	55	82	...
Total ... 1887-88 ...	...	1	34	1	3	39	39	27	30	12	17	39	49	...
BULDANA.															
Demarcated State Forests ...	...	4	3	3	...	10	10	8	34	2	10	10	44	...
District Reserved and Unreserved Forests	2	...	128	4	...	132	134	121	169	13	16	134	185	...
Total ... 1888-89 ...	2	4	131	7	...	142	144	129	203	15	26	144	229	...
Total ... 1887-88 ...	2	...	25	...	3	28	30	16	23	12	27	28	50	2
BASIM.															
Demarcated State Forests ...	...	1	...	...	1	2	2	1	3	1	2	2	5	...
District Reserved and Unreserved Forests	3	...	68	...	1	69	72	63	83	9	20	72	103	...
Total ... 1888-89 ...	3	1	68	...	2	71	74	64	86	10	22	74	108	...
Total ... 1887-88 ...	..	...	30	3	71	104	104	91	122	10	19	101	141	3
WUN.															
Demarcated State Forests ...	...	...	15	5	3	23	23	14	29	7	19	21	48	2
District Reserved and Unreserved Forests	...	...	19	1	...	20	20	15	24	3	3	18	27	2
Total ... 1888-89 ...	...	...	34	6	3	43	43	29	53	10	22	39	75	4
Total ... 1887-88 ...	...	...	25	...	4	29	29	25	39	4	13	29	52	...
ABSTRACT.															
Demarcated State Forests ... 1888-89 ...	...	6	28	8	5	47	47	34	100	11	32	45	132	2
Demarcated State Forests ... 1887-88 ...	...	5	36	9	7	57	57	47	104	10	26	57	130	...
District Reserved and Unreserved Forests 1888-89 ...	5	..	309	11	129	449	454	383	513	67	124	450	637	4
District Reserved and Unreserved Forests 1887-88 ...	5	1	142	9	178	330	335	271	387	59	101	330	488	5
Total ... 1888-89 ...	5	6	337	19	134	496	501	417	613	78	156	495	769	6
Total ... 1887-88 ...	5	6	178	18	185	387	392	318	491	69	127	387	618	5

FORESTS.

ANNUAL FORM No 51.—*Area of Forest Tracts protected from fire during the dry season 1889,—to accompany Report for 1888-89.*

Division	Forest Tracts	Year in which protection commenced	Area actually protected up to 30th June 1888	During dry season of 1889			Cost during the season up to 30th June 1889
				Area attempted to be protected.	Failures.	Actually protected	
			Acres	Acres	Acres	Acres	Rs
Ellichpur	Raipur block Barragarh Reserve	1870	14,231	14,231		14,231	345
	Remainder of Buragarh Reserve	1872	257,018	257,818	167	257,651	1,560
	Gugamal Reserve	1877	114,984	115,044	320	114,724	835
		Totals	386,233	387,093	487	386,606	2,740
Amraoti	Chirodi Reserve	1881	11,838	13,071	152	12,919	154
	Mehdari do.	1889		4,052	10	4,042	80
		Totals	11,838	17,123	162	16,961	234
Akola	Ghatbori Reserve	1881	23,760	23,760	...	23,760	625
	Loni do	1882	908	908	...	908	...
	Bhongaon do	1882	1,368	1,368		1,368	...
	Mandwa do	1882	5,475	5,475	...	5,475	146
	Borgaon do	1889	...	1,435	...	1,435	...
		Totals	31,511	32,946		32,946	771
Buldana	Gerumateigaon Reserve	1880	40,967	45,947	21	45,926	112
	Amdari do	1889	13,702	13,717	36	13,681	69
		Totals	54,669	59,664	57	59,607	181
Basim ..	Penganga Reserve ..	1880	11,575	11,575		11,575	189
	Kinwat do	1881	52,558	52,558	643	51,915	675
	Rui do	1882	6,517	6,647	.	6,647	60
	Gahuli do	1885	9,507	9,507	.	9,507	184
	Medsi do ..	1889		1,115	.	1,115	...
	Mohoja do.	1889	...	2 111	...	2,111	
	Chandus do	1889	...	3,015	...	3,015	...
	Ekburji do.	1889	.	172	..	172	
		Totals	80,157	86,700	643	86,057	1,108
Wun.	Kolapur Reserve	1881	21,129	40 289	80	40,209	649
	Tiwasala do. ..	1882	3,668	4,873	60	4,813	63
	Gondwakri do.	1882	15,029	16,359	8,800	7,559	278
	Kharad do. ..	1882	15 509	15,514	2,015	13,499	313
	Anjankhed do.	1882	7,634	7,634		7,634	156
	Lonbehel do	1882	9,187	9,187	. .	9,187	210
	Pathrot do.	1882	2,889	2,889		2,889	201
		Totals	75,045	96,745	10,955	85,790	1,870
		Grand Totals .	639,453	680,271	12,304	667,967	6,904

FORESTS.

Annual Form No. 52.—*Area of Plantations and Cultural Operations*, 1888-89.

Division	Name of Plantation	Area in acres. On 1st April 1888	Added during the year	Excluded during the year.	Area on 31st March 1889.	Receipts Of the year	Charges Of the year	Remarks
	1.—Regular Plantations.							
Ellichpur	Bairagarh Reserve	...	...	.	120	..	..	
	Abapur	120			31	...	..	Teak and bamboo.
	Bujru	31	.	...	11		.	Do.
	Dugapati ...	11		...	600		..	Do
	Jambulwari ..	600	.	..	1	.	...	Teak.
	Kulkas	1	..	.	279	...	18	Bamboo.
	Lubu	279	..	.	52	..		Teak
	Pili	52		...	160	...		Do
	Pipalkotah ..	160			13	.	.	Teak and bamboo.
	Rakindoh ...	13		...	110		..	Do
	Saoli ..	110	.		30	...	...	Do
	Saoli and Kurltha .	30	...	...	2	...	Y	Teak.
	Sembadoh	2		...				Teak and bamboo
	Miscellaneous . .		...	...				
	Tota	1,409	.		1,409	...	18	
Wun ...	Pathrot Reserve	50		50	..	..	205	Planted with mango, mohe, bamboo, hirra, and sal shum.
	Total Regular Plantations ...	1,450	...	50	1,409		223	
	2.—Cultural Operations							
Ellichpur ...	Bairagarh Reserve		10		10		26	
	Gugamal do.	751			751		..	
	Chikalda do.	..		...	..		120	Forest garden.
	District Reserved Forests	2		..	2		101	Date plantation
	Total	753	10		763		247	
Amraoti	Chirodi reserve ..	1,420	353	353	1,420		500	
	District Reserved Forests	917	..		917		140	
	Total .	2,337	386	353	2,337		640	
Akola ..	Loni Reserve .	385	25	...	410		...	Broadcast sowing.
	Bhongson Reserve	415	24		439	...	5	Do.
	Ghatbori do	590			590		30	Collecting seed.
	District Reserved Forests	129	66		195		12	Broadcast sowing.
	Total .	1,519	115		1,634	..	47	
Buldana	Garumatgraon Reserve	909			909	..		
	Amdari do. .	87		.	87			
	Miscellaneous		.	...		...	4	
	Total .	996	..		996		4	
Basim	Penganga Reserve ..	2,091		.	2,091	...		
	Rui do. ...	864	261		1,125		109	Ploughing and collecting seed preparatory to sowing.
	Kinwat do.	102	...		102		.	
	District Reserved Forests .	1,104		...	1,104			
	Total .	4,161	261	...	4,422	...	109	
Wun	Kelapur Reserve	132	..		132	...	43	
	Tiwasala do .. .	61		...	61		...	
	Gondwakri do	152	.	...	152		2	
	Khurad do.	162	400		562	.	212	
	Anjanbber do.	277	...	..	277	...	3	
	Lonbehel do. ...	31	...		31	...	1	
	Pathrot do.	51	...		51		17	
	District Reserved Forests ...	...	...		..		1	
	Total ...	866	400	...	1,266	.	279	
	Total Cultural Operations .	10,632	1,139	353	11,418	...	1,416	

FORESTS

ANNUAL FORM No. 53.—*Trees felled or girdled by Government Agency during the year* 1888-89—(*Selection fellings*).

Division.	Trees felled or girdled.		Remarks.
	Description of Trees.	Number.	
Ellichpur	Teak	* 628	* As per Working Plan for the Raipur-Makla Blocks of the Bairagarh Reserve.
	Total ...		

FORESTS.

ANNUAL FORM No. 54.—*Outturn of Timber and Firewood* during the year* 1888-89.

Division.	Description of materials.	Outturn in cubic feet.								Remarks.
		Selection fellings.	Clearances.	Thinnings.	Total.	Removed by Government Agency.	Purchasers.	Free grant.	Right holders.	
I.—DEMARCATED STATE FORESTS.										
Ellichpur ...	Teak timber ...	a. 8,[illegible]	b. 15,523	20[illegible]	24,036	383	22,4[illegible]	1,213	...	(a)=328 first class trees as per Raipur Makhla Working Plan. (b) 8,733 cubic feet (=2,450 trees) from improvement fellings as per Raipur-Makhla Working Plan. 6,790 (=6,537 pieces) from dead and fallen material. 15,523 (c) From the above source.
	Timber of miscellaneous species ...	...	c. 2,76[illegible]	...	2,768	14	2,754	...	...	
Amraoti ...	Firewood ...	...	1,072	...	1,072	...	1,072	..	...	
Akola ...	Timber of miscellaneous species ...	...	406	...	406	...	406	...	...	
	Firewood ...	...	80,3[illegible]	...	80,3[illegible]	...	80,3[illegible]	...	...	
Buldana ...	Timber of miscellaneous species ...	...	716	...	716	...	716	...	...	
	Firewood ...	...	11,115	...	11,115	...	11,115	...	...	
Basim ...	Timber of miscellaneous species ...	...	12	...	12	...	12	...	...	
	Firewood ...	...	3,76[illegible]	...	3,76[illegible]	...	3,76[illegible]	...	...	
Wun ...	Timber of miscellaneous species ...	...	400	...	400	...	400	...	...	
	Firewood ...	...	10,52[illegible]	...	10,52[illegible]	...	10,52[illegible]	...	...	
II.—DISTRICT RESERVED AND UNRESERVED FORESTS.										
Ellichpur (Reserves only.)	Firewood ...	...	...	...	5,8[illegible]	...	5,8[illegible]	...	...	
Amraoti ...	Timber of miscellaneous species ...	...	...	...	516	...	516	...	...	
	Firewood ...	...	...	...	75,717	...	75,717	...	...	
	Charcoal ...	...	...	...	131	...	131	...	...	
Akola ...	Timber of miscellaneous species ...	...	...	...	550	...	550	...	...	
	Firewood ...	...	...	...	148,435	...	147,435	...	...	
	Charcoal ...	...	...	...	8,229	...	8,229	...	...	
Buldana ...	Teak timber ...	...	...	...	43,528	...	43,528	...	...	
	Timber of miscellaneous species ...	...	...	...	23,884	...	23,884	...	...	
	Firewood and Charcoal ...	...	...	...	53,680	..	53,680	...	...	
Basim ...	Teak timber ...	...	...	...	25,553	...	25,056	497	...	
	Timber of miscellaneous species ...	...	...	...	29,805	...	29,301	504	...	
	Firewood ...	...	...	...	74,023	...	74,023	...	...	
	Charcoal ...	...	...	...	2,654	...	2,654	...	...	
Wun ...	Timber of miscellaneous species ...	...	...	...	945	...	9[illegible]	...	...	
	Firewood ...	...	...	...	8,564	..	8,564	...	...	
	Charcoal ...	...	...	...	504	...	504	...	...	
Ellichpur (Unreserves only.)	Teak timber ...	...	...	...	189,158	...	189,158	...	...	
	Timber of miscellaneous species ...	...	...	...	150,403	...	150,[illegible]03	...	...	
	Firewood ...	...	...	...	113,038	...	113,038	...	...	
	Charcoal ...	...	...	...	149,413	...	149,413	...	...	
	ABSTRACT.									
1887-88 ...	Teak timber ...	...	...	...	22[illegible],[illegible]5	...	22[illegible],[illegible]5	...	...	
1888-89 ...		...	...	...	289,267	380	289,147	1,740	..	
1887-88 ...	Timber of miscellaneous species ...	...	...	...	241,269	...	241,154	115	...	
1888-89 ...		...	...	...	220,405	14	219,987	504	...	
1887-88 ...	Firewood ...	...	...	...	275,425	...	275,373	52	...	
1888-89 ...		...	...	...	5[illegible]6,140	...	5[illegible],140	...	...	
1887-88 ...	Charcoal ...	...	...	...	138,473	...	138,473	...	...	
1888-89 ...		...	...	...	158,931	...	153,931	...	...	

* Charcoal should be shown by its equivalent in firewood.

FORESTS.

ANNUAL FORM No. 55.—*Outturn of Minor Forest Produce during the year* 1888-89.

Division.	Description of Produce.	Produce removed or realised. By Government Agency. Quantity.	By Government Agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right holders. Quantity.	By right holders. Value.	Total. Quantity.	Total. Value.
	1.—DEMARCATED STATE FORESTS.				Rs.		Rs.		Rs.		Rs.
Ellichpur	Bamboos ... ... No.	...	...	1,732,907	25,092	800	12	...	...	1,733,607	25,004
	Lac ... ... Tons.	...	...	¼	5	...	...	...	...	¼	5
	Roots and fruits	...	...	...	290	...	...	...	...	...	290
Amraoti	Grass, cut	...	...	...	3,575	...	225	...	...	...	3,800
	Leaves, sendi	...	...	...	12	...	...	...	...	...	12
	Fruits	...	...	...	66	...	...	...	...	...	66
Akola	Grass, cut	...	...	...	1,562	...	...	...	...	...	1,562
	Miscellaneous minor produce ...	...	...	...	54	...	...	...	...	...	54
Buldana	Grass, cut	...	...	...	1,427	...	40	...	...	...	1,467
	Miscellaneous minor produce ...	...	...	...	23	...	...	...	...	...	23
Basim	Bamboos ... ... No.	...	...	1,500	30	...	...	...	...	1,500	30
	Grass, cut	...	...	...	764	...	...	...	...	...	764
	Miscellaneous minor produce ...	...	...	...	8	...	...	...	...	...	8
Wun	Bamboos ... ... No.	...	...	18,037	225	...	...	...	...	18,037	225
	Grass, cut	...	...	...	3,130	...	...	...	...	...	3,130
	2.—DISTRICT RESERVED AND UNRESERVED FORESTS.										
Ellichpur, Reserves only.	Grass, cut	...	...	...	443	...	...	...	...	...	443
	Fruits	...	...	...	283	...	...	...	...	...	283
Amraoti	Bamboos ... ... No.	...	...	275	3	...	...	...	...	275	3
	Grass, cut	...	...	...	373	...	...	...	...	...	373
	Grass sales by auction on Amraoti nakas	...	...	...	3,505	...	...	...	...	...	3,505
	Do. on Karinja do.	...	...	...	1,070	...	...	...	...	...	1,070
	Do. on Mumnas ...	...	...	...	9,609	...	...	...	...	...	9,609
	Leaves, date	...	...	...	446	...	...	...	...	...	446
	Fruits	...	...	...	4,578	...	...	...	...	...	4,578
	Minerals	...	...	...	113	...	...	...	...	...	113
	Gum	...	...	...	474	...	...	...	...	...	474
	Miscellaneous minor produce ...	...	...	...	103	...	...	...	...	...	103
Akola... ...	Bamboos ... ... No.	...	...	549	5	...	...	...	...	549	5
	Grass, cut	...	...	...	840	...	...	...	...	...	840
	Grass by auction sale ...	...	...	...	708	...	...	...	...	...	708
	Miscellaneous minor produce ...	...	...	...	752	...	...	...	...	...	752
Buldana	Grass, cut	...	...	...	970	...	...	...	...	...	970
	Minerals ... ... Tons.	...	...	...	15	...	...	...	...	...	15
	Fruits	...	...	...	1,736	...	...	...	...	...	1,736
Basim	Bamboos ... ... No.	...	...	450	9	...	...	...	...	450	9
	Grass, cut	...	...	...	840	...	...	...	...	...	840
	Minerals	...	...	...	42	...	...	...	...	...	42
	Fruits	...	...	...	865	...	...	...	...	...	865
Wun	Bamboos ... ... No.	...	...	41,800	418	...	...	...	...	41,800	418
	Grass, cut	...	...	...	1,064	...	...	...	...	...	1,064
	Fruits	...	...	...	3,300	...	...	...	...	...	3,300
Ellichpur, Unreserves only	Bamboos ... ... No.	...	...	1,064,902	15,974	...	...	...	...	1,064,902	15,974
	Grass, cut	...	...	...	3,299	...	...	...	...	...	3,299
	Lac ... ... Tons.	...	...	7	108	...	...	...	...	7	108
	Leaves, teak	...	...	...	604	...	...	...	...	...	604
	Roots and fruits	...	...	...	3,368	...	...	...	...	...	3,368
	Gum ... ... Tons.	...	...	20	175	...	...	...	...	20	175
	Miscellaneous minor produce ...	...	...	...	62	...	...	...	...	...	62
	Total ...	...	...	...	93,326	...	277	...	...	...	93,603
	ABSTRACT.										
1887-88	Bamboos ... ... No. ...	...	...	2,333,370	34,590	...	...	...	...	2,333,370	34,590
1888-89		...	...	2,860,320	42,654	800	12	...	...	2,861,120	42,666
1887-88	Grass, cut	...	...	...	39,304	...	35	...	...	...	39,339
1888-89		...	...	...	33,185	...	265	...	...	...	33,450
1887-88	Roots and fruits	...	...	...	13,520	...	...	...	...	...	13,520
1888-89		...	...	...	14,492	...	...	...	...	...	14,492
1887-88	Lac ... ... Tons.	...	...	6	97	...	...	...	...	6	97
1888-89		...	...	7¼	113	...	...	...	...	7¼	113
1887-88	Leaves...	...	...	...	913	...	...	...	...	...	913
1888-89		...	...	...	1,062	...	...	...	...	...	1,062
1887-88	Minerals	...	...	...	105	...	...	...	...	...	105
1888-89		...	...	...	170	...	...	...	...	...	170
1887-88	Gums	...	...	...	35	...	...	...	...	...	35
1888-89		...	...	...	649	...	...	...	...	...	649
1887-88	Miscellaneous minor produce ...	...	...	...	912	...	...	...	...	...	912
1888-89		...	...	...	1,001	...	...	...	...	...	1,001
1887-88	Total ...	...	...	...	89,476	...	35	...	...	...	89,511
1888-89		...	...	...	93,326	...	277	...	...	...	93,603

FORESTS.

ANNUAL FORM No. 57.—*Abstract showing the value of Live and Dead Stock for the year* 1888-89.

Description	On hand at commencement of the year			On hand at close of the year			Difference in value		Remarks.
	No.	C. ft	Value.	No.	C. ft.	Value	In favor of the year	Against the year.	
Direction Office.			Rs.			Rs.	Rs.	Rs.	
Surveying and other instruments ...	11	...	...	11	...	...	...	...	
Tools	18	...	10	18	..	10	...	...	
Office furniture ...	116	..	417	129	...	501	...	...	
Tents	8	...	597	8	...	537	...	...	
Miscellaneous	51	...	93	51	...	93	...	...	
Elephant	1	...	2,700	1	...	2,400	...	...	
Total .	205	...	3,817	218	...	3,541	...	276	
Ellichpur Division.									
Surveying and other instruments ..	18	..	...	18	...	...	...	...	
Tools	672	...	448	767	...	483	...	...	
Office furniture	194	...	816	195	...	752	...	...	
Tents	6	...	578	6	...	520	...	...	
Bungalows...	2	...	8,000	2	...	8,000	...	...	
Miscellaneous	251	...	358	250	...	345	...	...	
Elephant	1	...	500	1	..	450	...	...	
Bullocks	5	...	125	5	...	113	...	...	
Buffaloes	2	...	50	3	...	65	...	...	
Total ..	1,151	...	10,875	1,247	...	10,728	...	147	
Amraoti Division.									
Surveying and other instruments ...	5	...	16	5	...	16	...	...	
Tools	60	...	74	60	...	74	...	...	
Office furniture	54	...	205	48	..	240	...	...	
Tents	3	...	362	3	...	350	...	...	
Miscellaneous	40	...	70	41	...	65	...	...	
Buffaloe	1	...	12	...	...	...	...	...	
Total ...	163	...	739	157	...	745	6	...	
Akola Division.									
Tools	236	...	...	236	...	...	...	...	
Office furniture	46	...	142	46	..	131	...	...	
Tents	3	...	398	3	...	367	...	..	
Miscellaneous	49	...	..	68	...	94	...	...	
Buffaloe	1	...	16	...	..	...	...	...	
Total ..	335	...	556	353	...	592	36	...	
Buldana Division									
Surveying and other instruments ..	5	...	...	5	...	...	..	...	
Tools	99	...	...	99	...	...	...	...	
Office furniture	40	...	230	45	...	281	...	...	
Tents	4	...	288	4	...	261	...	...	
Building	...	...	...	1	...	1,000	...	...	
Miscellaneous	91	...	96	91	...	91	...	...	
Total ..	239	...	614	245	...	1,633	1,019	...	
Basim Division.									
Surveying and other instruments .	10	...	...	10	...	...	...	...	
Tools	259	..	101	259	..	91	...	...	
Office furniture	59	...	50	59	...	45	...	...	
Tents	4	...	346	4	...	311	...	...	
Miscellaneous	50	..	36	84	...	215	...	...	
Elephant	...	..	...	1	...	1,140	...	..	
Total	382	...	533	417	...	1,802	1,269	...	
Wun Division.									
Surveying and other instruments ...	34	...	...	33	...	4	...	...	
Tools	107	...	...	91	...	288	...	...	
Office furniture	60	...	...	63	...	699	...	...	
Tents	3	...	345	3	...	345	...	...	
Miscellaneous	82	...	...	79	...	158	...	...	
Elephant	1	...	...	1	...	...	...	...	
Buffaloes	3	...	42	..	...	...	..	...	
Total ...	290	...	387	270	...	1,494	1,107	...	
Grand Total ..	2,765	...	17,521	2,907	...	20,555	3,437	423	

FORESTS.

ANNUAL FORM No. 58.—*Preliminary Summary of Revenue of the different Divisions during* 1888-89.

Budget Heads.—Revenue.	Direction Office.	Divisions.						Total.
		Akola.	Amraoti.	Buldana.	Basim.	Ellichpur.	Wun.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government Agency:—								
a. Timber	...	...	...	...	...	...	*a* 157 3 0	157 3 0
b Firewood and charcoal	...	...	...	...	...	...	...	...
c Bamboos	...	...	...	...	...	...	...	...
d. Sandal-wood	...	...	...	...	...	...	...	...
e. Grass and other minor produce ...	...	...	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers:—								
a. Timber	...	145 9 0	128 9 0	11,370 5 0	8,091 4 0	83,000 7 4	315 1 6	1,03,051 3 10
b. Firewood and charcoal	...	10,905 6 10	14,597 10 6	1,775 4 6	2,359 0 0	7,225 12 6	518 2 3	37,381 4 7
c. Bamboos	...	5 8 0	2 12 0	...	39 0 0	41,965 11 0	641 4 0	42,654 3 0
d. Grazing and fodder grass ...	...	25,667 3 3	42,930 5 7	29,352 2 9	21,776 2 5	16,919 9 6	67,266 11 5	2,03,912 2 11
e. Other minor produce	...	806 7 0	5,790 13 10	1,774 3 0	944 2 3	4,864 15 0	3,773 3 6	17,953 12 7
III.—Drift and waif wood and confiscated forest produce.	...	9 12 9	41 9 6	467 12 0	371 1 9	233 5 6	7 14 0	1,131 7 6
IV—Revenue from forests not managed by Government.—								
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests	...	...	...	...	...	...	...	...
V.—Miscellaneous:—								
a. Fines and forfeitures	...	21 9 0	...	...	13 12 0	...	41 12 0	77 1 0
b. Refunds	...	17 0 11	4 13 2	...	409 9 6	444 1 7	10 3 9	885 12 2
c. Other sources	114 12 4	41 1 4	7 0 0	50 9 9	...	723 6 0	51 7 7	988 5 0
Total ...	114 12 4	37,619 10 1	63,503 9 7	44,790 5 0	34,003 15 11	1,55,377 4 5	72,782 14 3	4,08,192 7 7

(a) Transfered to II.-(a) in March (Final) Accounts.

FORESTS.

ANNUAL FORM No. 58.—*Summary of Expenditure of the different Divisions during the year* 1888-89.

Budget Heads.—Expenditure.	Direction Office	Divisions. Akola.	Amraoti.	Buldana.	Basim.	Ellichpur.	Wun.	Total.
A.—CONSERVANCY AND WORKS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government Agency:—								
a. Timber	...	...	...	...	...	...	...	
b. Firewood and charcoal	...	...	...	...	...	...	...	...
c. Bamboos ...	...	...	...	...	...	...	...	...
d. Sandal wood	...	...	...	...	...	...	...	...
e. Grass and other minor produce.	...	...	...					
II.—Timber and other produce removed from the forests by consumers or purchasers	...	3,057 14 2	3,177 5 0	4,419 8 4	1,853 10 5	1,378 5 6	7,312 3 7	21,198 15 [illegible]
III.—Drift and waif wood and confiscated forest produce	...	...	...	...	...	...	...	...
IV.—Revenue from forests not managed by Government:—								
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests ...	...	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	...	...	...	17,119 12 0	...	17,119 12 [illegible]
VI.—Live stock, stores, tools and plant:—								
a. Purchase of cattle ...	...	...	...	...	1,200 0 0	23 0 0	...	1,223 0 0
b. Food and keep of cattle	854 15 10	...	...	...	394 7 0	795 0 6	799 13 6	2,844 4 10
c. Purchase of stores, tools and plant	210 8 2	111 12 6	91 13 6	114 2 6	220 10 0	160 7 9	88 0 6	997 6 11
VII.—Communications and buildings:—								
a. Roads and bridges	...	31 10 6	77 0 0	...	128 0 0	12,609 10 6		12,844 5 0
b. Buildings ...	...	113 0 0	23 11 0	50 0 0	105 0 0	4,615 6 3	888 9 4	5,838 10 7
c. Other works ...	...	...	6 0 0	...	...	244 3 0	...	252 3 0
VIII.—Demarcation, improvement, and extension of forests:—								
a. Demarcation	...	217 6 0	1,509 12 9	59 3 0	84 1 6	150 7 6	131 3 0	2,152 [illegible]
b. Compensation for land and rights	.	...		...	.			
c. Surveys and working plans	5 0 0	.		..		12 8 0		17 8 0
d. Sowing and planting ...	...	47 8 7	839 9 11	4 1 7	196 12 9	295 6 3	494 6 4	1,638 13 3
e. Protection from fire	...	589 6 10	234 3 4	210 3 8	1,208 9 2	2,613 12 9	1,625 9 4	6,481 13 1
f. Other works ...	...	...	...	...	...	99 12 0		99 12 0
IX.—Miscellaneous:—								
a. Refunds	...	...	...	.	...	1 0 0	80 8 0	81 8 0
b. Law charges ...	.					2 0 0	0 0 0	2 6 0
c. Other charges ...	3 1 6	195 10 11	208 14 9	176 1 1	134 3 2	658 15 6	294 8 9	1,666 7 8
Total A.—Conservancy and Works	1,073 9 6	4,963 5 6	5,969 6 3	5,033 4 2	5,615 6 0	40,860 12 6	11,709 4 4	74,625 0 [illegible]
B.—ESTABLISHMENT.								
I.—Salaries:—								
a. Conservators	12,838 7 1							12,838 7 1
b. Superior officers	.	1,403 3 7	2,900 0 0	1,952 10 4	5,365 7 9	7,441 6 4	2,400 0 0	20,762 12 0
c. Subordinate Forest and Depôt establishments	.	3,638 14 6	2,348 10 7	2,816 2 9	4,250 13 2	15,323 0 7	4,806 13 1	32,684 6 8
d. Office establishments	3,537 8 7	388 12 1	742 7 9	882 1 6	943 4 2	2,455 15 11	1,049 9 [illegible]	9,999 11 3
e. Deputation and special allowances	.	...	...	...	...	...	...	...
II.—Travelling allowances:—								
a. Conservators	1,630 6 0							1,630 6 0
b. Superior officers	...	70 4 0	499 10 [illegible]	725 10 0	1,065 4 0	2,438 2 0	782 9 4	5,581 8 0
c. Subordinate Forest and Depot establishments		690 12 8	833 1 4	750 5 4	686 12 0	1,564 9 10	618 14 8	4,634 7 10
d. Office establishments	236 12 3	160 12 2	101 3 4	308 5 4	165 15 0	312 13 7	169 4 4	1,355 2 0
III.—Contingencies:—								
a. Stationery ...	26 7 0	14 13 7	18 14 4	12 13 4	17 1 10	185 14 2	35 2 1	291 2 4
b. Carriage of tents and records	341 0 3	221 9 9	407 1 4	366 11 4	389 5 8	527 6 4	349 4 4	2,532 7 0
c. Rents, rates and taxes	..	...	180 0 0	...	...	400 0 0	180 0 0	760 0 0
d. Pay of Police guards	.	.						
e. Official postage ...	241 8 6	92 1 6	89 12 0	70 14 6	40 12 6	418 14 0	15 15 6	914 10 0
f. Sundries	68 6 4	32 2 7	50 9 0	59 15 6	199 13 10	169 7 10	124 13 7	615 4 8
Total B.—Establishments	18,940 3 0	6,703 6 5	6,921 6 10	7,845 9 11	13,014 9 11	31,232 10 7	10,012 6 2	94,670 4 10
Grand Total of Expenditure	20,013 12 6	11,066 11 11	12,890 13 1	12,878 14 1	18,630 15 11	72,093 7 1	21,721 10 6	1,69,295 5 1

a. Transferred to A-II in March [Final] Accounts.

COMPTROLLER'S OFFICE,
Bolarum,
The 17*th June* 1889.

T. H. S. BIDDULPH,
Comptroller,
Hyderabad.

FORESTS

ANNUAL FORM No. 59.—*Account-Current of the Forest Department, Hyderabad Assigned Districts, for the year* 1888-89.

Dr.

	Rs. a. p.	Rs. a. p.
To Cash Balance		779 15 0
„ IX.—Forests (Revenue as per annual summary Form No. 58) ..	4,08,192 7 7	
„ Service Funds	517 0 0	
Forest Cash Remittances, Local—		
Forest cheques drawn	1,66,059 6 8	
Inter-divisional transfers	1,328 3 3	5,76,097 1 6
To Advances recoverable	75,406 8 4	
„ Suspense	...	
„ Cash Recoveries	829 4 4	
„ Account Current (Other Governments) ..	3,825 0 11	
„ Inter-departmental transfers	162 9 1	80,223 6 8
Total		6,57,100 7 2

Cr.

	Rs. a. p.	Rs. a. p.
By 11.—Forests (Expenditure as per annual summary Form No. 58.) .	1,69,295 5 1	
„ *Forest Cash Remittances, Local—*		
Remittances to treasuries	4,07,421 2 11	
Inter-divisional transfers	1,328 3 3	
Cancelled cheques	...	5,78,044 11 3
„ Advances recoverable	76,904 5 1	
„ Suspense	...	
„ Cash Recoveries...	829 4 4	
„ Account Current (Other Governments) ..	1,041 9 2	
„ Inter-departmental transfers ...	...	78,775 2 7
„ Cash Balance		280 9 4
Total ..		6,57,100 7 2

COMPTROLLER'S OFFICE,
BOLARUM,
The 17th June 1889.

T. H. S. BIDDULPH,
Comptroller,
Hyderabad.

FORESTS.

ANNUAL FORM No. 60.—*Revenue received and Outstandings on account of Revenue during* 1888-89.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.
			Rs. a. p.	Rs. a. p.	Rs. a. p	
Direction ...	Timber and other produce ...	...	114 12 4	114 12 4	114 12 4	...
Ellichpur ...	Do. ...	..	1,55,377 4 5	1,55,377 4 5	1,55,377 4 5	..
Amraoti ...	Do. ...	...	63,503 9 7	63,503 9 7	63,503 9 7	...
Akola ...	Do. ...	...	37,619 10 1	37,619 10 1	37,619 10 1	...
Buldana ...	Do. ...	...	44,790 5 0	44,790 5 0	44,790 5 0	...
Basim ...	Do. ...	...	34,003 15 11	34,003 15 11	34,003 15 11	...
Wun ...	Do. ...	...	72,782 14 3	72,782 14 3	72,782 14 3	...
	Total ...	...	4,08,192 7 7	4,08,192 7 7	4,08,192 7 7	...

ANNUAL FORM No. 61.—*Outstandings and Liabilities on account of Contractors and Disbursers for the year* 1888-89.

Division.	Department Debtor.			Department Creditor.			Balance due	
	At commencement of year.	Recoveries in cash and value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during year.	At close of year	To Department (outstandings.)	By Department (Liabilities.)
	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a p.	Rs. a p	Rs. a p.	Rs. a. p.	
Akola Division	...	10,352 15 4	10,352 15 4	232 9 9	11,280 10 8	11,513 4 5	1,160 5 1	...
Amraoti do.	1 9 2	8,243 5 7	8,244 14 9	454 4 4	9,604 15 6	10,059 3 10	1,814 5 1	...
		+230 0 0	+230 0 0		+230 0 0	+230 0 0		
Basim do.	...	9,184 3 4	9,184 3 4	731 11 1	8,891 4 7	9,622 15 8	438 12 4	...
Buldana do.	...	8,694 10 11	8,694 10 11	1,701 11 0	8,724 12 4	10,426 7 4	1,731 12 5	..
		+156 10 8	+156 10 8		+156 10 8	+156 10 8		
Direction do.	...	1,328 14 5	1,328 14 5	14 6 4	1,388 3 7	1,402 9 11	73 11 6	...
Ellichpur do.	...	27,758 13 10	27,758 13 10	3,440 3 1	27,073 12 6	30,513 15 7	2,755 1 9	...
Wun do.	...	9,456 14 3	9,456 14 3	..	9,553 15 3	9,553 15 3	97 1 0	...
	1 9 2	75,406 8 4	75,408 1 6	6,574 13 7	76,904 5 1	83,479 2 8	8,0712 1 2	...

(a) Departmental transfers made in this office during the year 1888-89.

T. H. S. BIDDULPH,
Comptroller, Hyderabad.

ANNUAL FORM No. 62.—*Financial results of the year* 1888-89.

Division.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection, and improvement of forests.	Total.	
	Receipt.	Charges	Receipts.	Charges.	Charges.	Receipts	Charges
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.
Direction	...	...	115	15,007	5,007	115	20,014
Ellichpur	...	...	1,55,377	43,428	28,665	1,55,377	72,093
Amraoti	...	...	63,503	8,646	4,245	63,503	12,891
Akola	...	...	37,620	8,365	2,702	37,620	11,067
Buldana	...	...	44,790	10,565	2,314	44,790	12,879
Basim	...	...	34,004	13,110	5,520	34,004	18,630
Wun	...	...	72,783	15,917	5,804	72,783	21,721
Total ...	...	...	4,08,192	1,15,038	54,257	4,08,192	1,69,295

FORESTS.

APPENDIX A.—*Cattle grazed in Demarcated State Forests, District Reserved Forests and District Unreserved Forests.*

Division	Class of Forests	Year	Camels	Buffaloes	Cows and bullocks	Sheep and goats	Total	Revenue	Remarks
	District Reserved Forests							Rs	
Ellichpur	Barram Grazing Tract in Ellichpur Taluk	1887-88	..	161	2,494	2,946	*5,601	...	
		1888-89	...	1,480	9,156	2,964	†13,600		
	Woods in Ellichpur and Daryapur Taluks	1887-88	...	3,455	15,124	..	*18,579	*3,482	
		1888-89		2,461	7,904		†10,365	†4,019	
	District Unreserved Forests								
	Melghat, (Ellichpur)	1887-88		5,807	26,827	4,064	*36,788	..	
		1888-89	1	6,125	25,068	3,771	†34,969		
	Ellichpur and Daryapur of Ellichpur	1887-88	5	5,460	36,476	43,735	*8,5221		
		1888-89.	8	6,330	40,986	30,511	†77,866		
	Akot and Jalgaon of Akola .. .	1887-88	4	3,177	28,917	7,034	*39,131	*9,906	
		1888-89	..	3,248	31,062	6262	†40,572	†10,159	
	Totals ..	1887-88	54	18,150	69,838	57,779	185,821	13,388	
		1888-89	44	19,644	114,176	43,508	177,372	13,178	
Amraoti	Demarcated State Forests	1887-88	.	1,354	6,984	9,570	†17,908	2,004	† Including the whole of the Amraoti Hills Reserve
		1888-89.			...		*	.	* Chiredi Reserve only
	District Reserved Forests and Unreserved Forests	1887-88		27,822	117,272	76,474	†2,21 568	26,424	† Excluding Amraoti Hills Reserve.
		1888 89	1	40,852	120,644	58,249	*2,19,746	24,798	* Including Amraoti Hills Reserve treated this year as District Reserved Forests
	Totals	1887-88	..	29,176	124,256	86,044	239,476	28,428	
		1888-89	1	40,852	120,644	58,249	219,746	24,798	
Akola ..	Demarcated State Forests	1887-88	...	478	7,761	...	8,289	2,179	
		1888-89		465	7,189	...	7,654	2,030	
	District Reserved Forests and Unreserved Forests .	1887-88		9,041	68,569	22,105	99,715	11,242	
		1888 89.	...	16,180	93,926	35,555	1,45,611	20,521	
	Totals	1887-88.	...	9,519	76,330	22,105	107,954	13,427	
		1888-89.		16,595	101,115	35,555	153,265	22,551	
Buldana ..	Demarcated State Forests.	1887-88	.	1,399	15,974	...	17,373	4,696	
		1888 89	...	1,008	13,095	...	14,103	3,819	
	District Reserved Forests and Unreserved Forests .	1887-88	...	19,984	125,677	89 259	234 914	23,589	
		1888 89	7	18,435	116,931	84,616	219,989	23,136	
	Totals ...	1887-88	...	21,383	141,651	89,253	252,287	28,285	
		1888-89	7	19,443	130,026	84,616	234,092	26,955	
Basim .	Demarcated State Forests	1887-88.	...	421	8,016		8,437	2,071	
		1888-89.		304	6,415	...	6,719	1,755	
	District Reserved Forests and Unreserved Forests	1887-88	...	20,011	139,754	41,761	201,526	23,493	
		1888 89	...	15,131	109,024	29,910	154,065	18,417	
	Totals .	1887 88.		20,432	147,770	41,761	209,963	25,564	
		1888 89		15,435	115,439	29,910	160,784	20,172	
Wun ..	Demarcated State Forests	1887-88	.	707	20,295	...	21,002	5,427	
		1888-89	...	183	7,354	..	7,537	1,930	
	District Reserved Forests and Unreserved Forests	1887 88	...	49,250	295,910	91,756	436,916	54,844	
		1888 89	...	59,188	329,353	90,249	478,820	61,610	
	Totals	1887-88.	.	49,957	316,205	91,756	457,918	60,271	
		1888-89	..	59,371	336,737	90,249	486,357	63,540	
Grand Totals	1.—Demarcated State Forests ..	1887-88	...	4,359	59,030	9,570	72,959	6,377	
		1888-89.	.	1,960	34,003	...	36,913	9,634	
	2.—Other Forests ..	1887 88.	54	144,258	857,020	379,128	1,380,460	1,52,986	
		1888-89.	52	169,380	884,084	342,087	1,395,603	1,61,660	
	3.—All Forests ..	1887-88	54	148,617	916,050	388,698	1,453,419	1,59,363	
		1888-89	52	171,340	918,137	342,087	1,431,616	1 71,194	

Appendix B.

Natural reproduction in the Demarcated State-Forests of Berar.

Ellichpur District.—Mr. Prevost writes with reference to the Bairagarh and Gugamal State-Forests in the Melghat:—"It is undoubtedly true that land formerly placed under cultivation by villagers on account of the better quality of the soil, or owing to its advantageous position on the tops of plateaus, or along the valleys, has, even after the lapse of 20 or 30 years, remained in exactly the same condition as it was in the very first year that it was left fallow ....As regards the more thickly wooded portions of the Bairagarh Reserve, there is no doubt that during the rains a considerable number of seedlings spring up; but a vast number are killed off by frost in December and January, and of the remainder the majority die during the hot weather from want of moisture and excess of sun. It must also be remembered that, in many places, even in the Bairagarh Reserve, we have but very poor soil; surface rock is abundant, and the absence of trees—especially ever-green trees—allows the hot sun of April, May and June, to strike full on the surface of the ground, and is fatal to the growth of all young seedlings. Again we have large areas, both in the Gugamal and Bairagarh Reserves, where, owing to steep scarps, and precipitous hill-sides, we have, so to say, no soil at all, and naturally cannot expect to find much reproduction in these circumstances. Successful fire protection has done much to restock the reserves of the Melghat; but I think I am right in stating that quite 90 per cent. of the present undergrowth (which in places is dense and satisfactory) is almost entirely due to the growth of coppice-shoots from trees cut over before the formation of the Reserves; these remarks apply particularly to teak, dhaura, sadra, haldu, and tiwas.....In sheltered and moist localities, or in the neighbourhood of water, seedlings are most frequently found; but such spots are rare in the Melghat.....Practically, we have, at present, no humus in the Melghat."

Amraoti District.—The Divisional Forest Officer, Mr. Rasul Khan, reports as follows:—"In the Chirodi Reserve the natural reproduction can be seen over some parts of the Reserve during the rainy season; but in ravines and along the nallahs the seedlings are abundant. No sooner the heat increases the plants on light soil begin to die; those in ravines, etc. etc., germinated under the shelter of trees bear the heat of the sun longer. Many of them even succumb to death when the sun is more hot and scorching. The stronger plants which have taken deep roots secure permanent footing, and show the promise of successful reproduction if they are not injured by wild beasts, etc. etc., and burnt by fire. It seems from this that the natural reproduction should not be considered as successful as it ought to be. As regards the Mehdari Reserve, I should say that the soil is better than Chirodi one. Consequently the seedlings can be seen more here: they have secured firm footing, owing to the fertile soil. In my opinion by and by this Reserve will have more successful reproduction than Chirodi."

Wun District.—The Divisional Forest Officer Mr. Mansukh Rai, after giving a detailed analysis of the condition of each State Forest, sums up as follows:—"Very encouraging natural reproduction is to be found in all the Reserves in the rainy season, but when the heat of October's sun begins to have an effect, the seedlings commence to disappear, and by the end of hot weather very few survive. The soil in almost all the Reserves is shallow. Only up to a foot deep good soil may be seen; but below that hard "moorum" soil is to be found. The roots cannot penetrate through easily. The great scorching heat of the sun and a very long drought kill almost all the seedlings which germinate during the rainy season. Those that survive struggle for existence for years before they get a permanent footing in the soil."

Akola District.—The Divisional Forest Officer, Mr. Taylor, reports as follows:—"The natural reproduction of Ghatbori Reserve seems unfavourable. In the Andharsaongi block natural reproduction is visible to some extent on the slopes where there has been little or no "light-grazing;" but the tops of the hills, though showing no signs of grazing, are almost absent of new tree growth. The soil is very poor and not in a fit condition to support seedlings. In the Butchwadi block a good many seedlings are visible in the lowlands, and the grass here has not been removed. In the ravines the natural reproduction is fair. Some of them contain a dense growth of teak, sag, dhaura, etc. The foliage of the trees is affording protection to the soil and permitting seedlings to persist. In the Wagdoo block the natural reproduction seems to be the result of coppice; no seedlings can be seen of from one to four years growth. The soil is very poor and requires protection for some years to bring it to a fit condition to receive the seeds and to result in successful reproduction. In the Mandwa block a large number of anjan trees of four years

of age and upwards may be seen. This block is almost entirely composed of anjan; and should this area enjoy perfect rest for a series of years, I am of opinion that there would be a very great improvement in the soil, resulting in successful natural reproduction.

Generally in this whole tract, owing to the dryness of the climate, the want of protection from the rays of the sun, and, in most parts, the poorness of the soil and want of moisture, though seeds germinate, they are unable to persist; and we cannot hope for satisfactory results until this state of things is changed. The natural reproduction of babul in Loni-Bhongaon is good."

Basim District.—The Divisional Forest Officer, Mr. Taylor, remarks as follows:—"Natural reproduction on the whole has been unsatisfactory. Seeds germinate but soon die off, owing to want of moisture and general unfitness of the soil to enable them to persist. Most of the seemingly seedlings are the result of coppice, or the off-shoots of roots; but the growth of seedlings of two to five years of age, I may say hardly exists, Kinwat Reserve being the only exception. This Kinwat Reserve seems to be the only place where successful reproduction is visible, and that to a limited extent. On the high-lands the soil is still not in a fit condition to enable seedlings to persist, though no doubt there has been a great improvement, the result of protection. For, in this Reserve, though "light-grazing" was permitted for three years previous to 1888-89, it might be said that there was no grazing, for I am informed by the Ranger that, owing to the existence of numerous predaceous flies during the rains, cattle are only able to graze for about 20 days at the very beginning of the rains; by which time grazing is available in the open forest, and where these flies do not exist in any numbers. In the low portions of the Reserve, on opening out the grass with the hands, young seedlings are visible. The improvement in many places I am of opinion has been steady. For instance, towards the river in the Nanni, Dhanora, Dehli, upwards, the reproduction has been good; young plants of all ages are plentiful, of teak and tewas particularly, and there is a dense growth, owing to which the growth of grass has been suppressed. These portions of the Reserve are very hopeful. But on the higher lands further improvement of the soil is requisite before we can look for success.

In the Penganga reserve the improvement of the existing stock is apparent, and though natural reproduction is visible in places, yet on the whole it has not been successful. Seedlings of 1 to 5 years old can hardly be found anywhere. The young trees now growing up are the result of coppice.

Gahuli and Rui Reserves are also unsuccessful in natural reproduction. There is no water in these three Reserves. The soil in Gahuli and Rui is extremely poor, though in Penganga it is better; these Reserves have been well grazed, particularly Rui and Gahuli."

Buldana District.—The Divisional Forest Officer, Mr. Wittinbaker, reports as follows: "Just before and during the rains there is abundant germination. During my last tour I observed seedlings of teak, etc., coming up in great profusion almost everywhere except perhaps upon a margin of about ½ a mile along the boundary of the forests. This portion being proof against germination is due to excessive grazing. Here the soil is caked and hardened and rendered almost impenetrable; and of cover (grass) there is none. But though there is abundant germination, this by no means represents successful natural reproduction, as the seedlings can only persist for a certain period. With the period of "light-grazing" (the rains) they suffer a considerable diminution, as they not only get trodden down and browsed over by the cattle that enter in considerable numbers and a nearly famished state, but even such as escape this are left on a soil hardened, caked, and exposed (by the removal of the grass) to the scorching influence of the sun which is to follow. Under these circumstances they continue to persist, and may even be found up to January, being fostered by the dew. But directly evaporation sets in with the hot months the seedlings invariably die off. After this I would see what was apparently a young seedling, but this was invariably found to possess a thick root-stock, and must have been many years old, having regularly sent up its leading shoot to be trodden down and browsed over, and scorched, year after year, till finally it had acquired strength enough to persist. There are very few that do persist even in this way."

Remarks on the above by the Officiating Conservator.

I am placed at a disadvantage through having no personal knowledge of the Akola, Basim, and Buldana forests. I am, however, sufficiently familiar with those of Wun, and am given to understand that the Reserves of South-Berar are much alike in their circumstances generally. The descriptions given above are certainly such as might be supposed to belong to an uniform type of forest. They indicate throughout a monotonous sameness of conditions in regard to a deteriorated stock, an impoverished soil, and a general absence of successful natural reproduction. It is with the downward progress of a timber forest as with the downward progress of other things: there are marked periods and charac-

teristic symptoms. The divisional officers have here merely described those systems which denote the particular stage of ruin at which the Berar forests have arrived. They are not peculiar to the Berar forests, but to ruined forests all over the world. The truth is that when the present so-called timber forests of Berar came to be placed under the protection of the Forest Department they had already arrived at the last stage which separates a tree forest, in the proper sense of the word, from mere waste land and scrub. In South-Berar a residuum alone remained, saved not by the remoteness of these tracts from civilisation, still less by their inaccessibility, but by a character of soil so inferior as to have caused them to be successively neglected or abandoned by the husbandman. In most other Provinces the Reserves of South Berar would have been rejected, as sources of a future timber supply, by the forest officer himself. Here they have been retained in the absence of anything better, and in hopes that, with care and protection, they may in course of time so far improve as to meet at least the purely local requirements of the villagers—requirements that do not extend to large, or even a very superior class, of timber. The final ruin of a timber forest is ushered in, as in the case of these Berar forests, by a change in the constitution of the soil which, for various reasons, refuses to lend itself, after a time, to the *natural* propagation of forest species, or no longer does so in a satisfactory manner with reference to some particular species. It has also to be observed that the soil of these Berar timber Reserves can at no time have been favourable to the formation of forest. Almost invariably shallow and stony, often quite superficial, and floored with an impenetrable sheet-rock, or hardly more hospitable "moorum," it is easy to understand that this soil must have been extremely slow to cover over with trees, and that such timber as it did produce was always of an inferior description. There is abundant evidence to show that the remnants of Berar timber forests remaining to us—at least in the south of the Province—have, for generations past, ceased to reproduce freely by the agency of seed. The entire stock is there, the result of coppice-shoots, and it is much that the latter should not always proceed from ancient and rotten stools, but occasionally from a younger and somewhat less diseased root system that has been enabled to struggle on through a long series of years, and finally to send up stems sufficiently vigorous to accommodate themselves to surrounding circumstances. Generally speaking, we here find the ground imperfectly covered, and the soil reduced, by generations of exposure, fires, erosion, and cattle-treading, to much of its old aridity and exceptional unsuitableness for forest purposes. The young seedlings are able to penetrate this inhospitable medium with difficulty, and so great is the evaporation from the exposed surface during the dry months of the year that it results in the absolute baking of both soil and the delicate and too superficially placed seedlings contained in it. Forest species are not as grass that they can survive this hot-oven existence. Teak cannot, and the same may be said of all the more valuable timber species. We have, none of us, acquired experience enough out here to be able to say how long it will take a forest soil thus deteriorated to recover under a system of continuous protection. But common sense alone should tell us that the 7 or 8 years protection extended to the South-Berar Reserves is not sufficient to produce very marked signs of improvement, the less so that this protection has hitherto never been perfect of its kind. If this soil is to improve at all, it must evidently be maintained covered. Even the grass itself must not be eaten up to foster evaporation and erosion, nor must the ground be baked by fires or compressed in the tracks of heavy cattle. The inherent poverty of the forest soil in Berar must render us cautious in our choice of artificial means for restocking the timber Reserves. Very expensive measures are out of the question; because however successful in themselves—and present conditions are not in our favour—it may be taken for certain that the soil is not susceptible, in general, of producing timber that would pay for any great initial outlay. At the same time, it seems evident that past experiments directed to this end in Berar have, in several instances, been ill-judged, and founded on an improper appreciation of local conditions. The encouragement given to grazing can surely be so classed, as also the operation of sowing seed broadcast, in the existing condition of the Reserves, on exposed and unprepared surfaces. What we require in Berar just now are Working-Plans which shall not only provide for the methodical improvement of the growing stock of trees, but direct all restocking operations and experiments within practicable channels suited to the special circumstances of each forest. Until this is done, there will be no real improvement in Berar forest management. At the same time, I am far from wishing to conceal the difficulties of the task that lie before us in this province: these remarks of mine indicate as much.

The Ellichpur Forest Officer lays stress on the circumstance that certain old sites of cultivation remain to the present day in the same treeless condition that distinguished them as much as 20 or 30 years ago. Although I have not been long in the Province, I will still venture on an explanation that has been suggested to me by personal observation on the ground. Wherever we wend our way in the interior of the Melghat, one circumstance strikes us almost with the force of a natural law, and that is the invariableness with which all the better class of forest is confined to the slopes of the hills, and is then extensive or otherwise according as steep inclines or level surfaces preponderate. If we except the banks of the Sipna river and a few other localities similarly placed, we do not come across good forest in the Melghat on grounds that *even approach to a level configu-*

ration, and the explanation is not that these areas have all at one time been cultivated, because this can easily be proved not to be the case It is true that the cultivator has singled out the level plateaus in preference, and this is intelligible enough, but still many of these are so situated that it is out of the question that they can ever have been under the plough; some are too far away from water, others again too confined in area My opinion is that these plateaus, although often suitable enough for rough purposes of agriculture, for the production of indifferent rain and winter crops, are, by the very nature of their formation, unadapted to the requirements of the majority of our forest trees in the matter of natural reproduction by seed This conclusion seems to me to be not only borne out by observation in respect of tracts that have apparently never been cultivated, but by the results of enquiries among the Kurkus themselves, who inform me that such forest as at one time covered the cultivated parts of their villages was at the best sparse and poor, and of that type which is still to be seen in virgin localities similarly located; namely, a characteristic open forest of badly-growing Ber, Tiwas, Kumbhi, Aoula, &c. Not that the soil is then suited to these species, but that they alone seem able to accommodate themselves to conditions so generally unfavourable The structure of the Melghat hills is trap, and the peculiar way in which level plateaus here alternate with gentle or steep inclines is a feature common to all trap regions, constituting as it does that typical staircase appearance which is familiar to us in the hills of the Deccan. The level areas of the Melghat are thus, generally speaking, mere platforms of solid trap rock, and this circumstance is of itself sufficient to explain the difficulty with which these grounds cover over with forest trees In many instances, a spreading sheet of impermeable basalt is entirely superficial; or we find an intervening deposit of not much more hospitable "moorum" There is then a marked insufficiency of vegetable soil, which is either extremely shallow or combined with an excess of stone It is not difficult to realise that these localities must be exceptionally dry during the hot months of the year, so dry in fact that such seedlings as manage to find a footing are in the end baked along with the miserable coating of soil in which they stand imbedded. Occasionally, the character of the underlying rock, and the situation of the plateau, are barriers to proper drainage, and then we have the opposite extremes of a wet soil at one season of the year, and a very dry soil later on—both unfavourable conditions to tree reproduction. It is thus possible to understand how the more level parts of the Melghat may, in many instances, be adapted to the requirements of a poor system of agriculture, and yet be unsuited to the free reproduction of forest species There can, I think, be no doubt, as already observed by me in the body of this Report, under "Area and Boundaries," that our Berar Reserves comprise much ground that is unfavourable to the growth of useful timber-grounds that are so intimately mixed up with the better parts of the forest that unfortunately they cannot be eliminated, giving to the Reserves in question an appearance of sufficiency that is unreal and imaginary.

FORESTS.

APPENDIX C-(1)—*Statement of Expenditure incurred in the Forest Department on Roads in the Ellichpur Division during the years* 1874-75 to 1888-89 *inclusive.*

Name of Reserve.	Name of Road.	No. of Miles.	1874-75. Construction.	1874-75. Repairs.	1875-76. Construction.	1875-76. Repairs.	1876-77. Construction.	1876-77. Repairs.	1877-78. Construction.	1877-78. Repairs.	1878-79. Construction.	1878-79. Repairs.	1879-80. Construction.	1879-80. Repairs.	1880-81. Construction.	1880-81. Repairs.	1881-82. Construction.	1881-82. Repairs.	1882-83. Construction.	1882-83. Repairs.	1883-84. Construction.	1883-84. Repairs.	1884-85. Construction.	1884-85. Repairs.	1885-86. Construction.	1885-86. Repairs.	1886-87. Construction.	1886-87. Repairs.	1887-88. Construction.	1887-88. Repairs.	1888-89. Construction.	1888-89. Repairs.	Total. Construction.	Total. Repairs.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Bairagarh ...	Sembadoh-Biba road ...	37	...	...	...	...	...	...	...	...	...	...	3,250	...	4,921	..	538	1,252	1,527	73	2,336	854	...	803	...	648	...	847	...	469	...	528	12,372	5,474	
Do. ...	Sembadoh-Makla road ...	7	..	...	...	...	...	...	...	...	...	...	...	...	...	...	601	...	3,684	61	1,122	...	...	96	...	324	...	140	...	111	...	63	5,407	785	
Do. ...	Sembadoh-Chikalda road ...	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,740	...	10,229	...	7,060	...	...	4,485	...	297	...	244	19,029	5,026	
Do. ...	Raipur-Patia road ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	35	...	...	...	48	...	...	10,502	382	...	198	10,502	663	
Do. ...	Makla-Biba road	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	..	6,023	...	8,977	301	15,000	301	
Do. ...	Raipur-Jarida road ...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	1,471	...	1,471	..	
Do. ...	Pili-Kolkaz road	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	71	...	63	...	...	...	95	...	65	...	79	...	71	...	444	
Gugamal ...	Chikalda-Bandum road ...	36	...	...	...	...	...	...	...	...	...	...	...	...	3,510	...	6,967	46	1,736	...	...	1,209	...	264	...	458	...	380	...	480	...	239	12,213	3,076	
Do. ...	Kolkaz-Rungarao Churni road.	12	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,705	...	...	1,319	...	130	...	178	...	117	3,705	1,744	
Melghat Unreserved Forests.	Repairs to Karas roads ...	...	...	...	...	...	...	439	...	32	...	144	...	443	...	...	...	...	...	10	...	117	...	48	...	...	...	21	...	296	...	400	...	1,950	
Do. ...	Motha road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,000	...	...	...	...	...	2,000	...	Grant by the Forest Department.
	Total ...	...	...	...	...	...	...	439	...	32	...	144	3,250	443	8,431	....	8,106	1,298	6,947	215	5,198	2,278	13,934	1,211	7,060	2,992	2,000	6,068	16,525	2,292	10,448	2,161	81,899	19,473	

Appendix C-(2)

FOR

APPENDIX C-(2).—*Statement showing the Expenditure on Buildings in the*

Name of Reserve.	Name and description of Building.	1874-75. Construction.	1874-75. Repairs.	1875-76. Construction.	1875-76. Repairs.	1876-77. Construction.	1876-77. Repairs.	1877-78. Construction.	1877-78. Repairs.	1878-79. Construction.	1878-79. Repairs.	1879-80. Construction.	1879-80. Repairs.	1880-81. Construction.	1880-81. Repairs.
		Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bairagarh Reserve.	*Tannas.*														
	Makla ...	...	...	95 0 0	...	...	3 4 0	...	6 9 2	...	...	...	...	...	...
	Sirubau ...	...	...	52 14 0	...	...	...	24 7 0	...	...	...	...	...	...	...
	Raipur ...	...	...	73 9 0	...	36 0 3	...	...	...	...	...	...	5 0 0	...	...
	Pli ...	...	...	...	8 0 0	...	...	...	10 2 9	...	...	...	...	...	...
	Abapur ...	...	...	42 2 0	...	...	...	...	5 10 9	...	...	...	...	...	11 6 0
	Awagarh ...	...	...	...	...	50 0 0	...	...	...	...	...	...	5 0 0	...	...
	Harisal ...	...	...	...	...	71 12 0	...	...	...	...	...	...	4 6 0	...	...
	Hatra ...	...	...	...	...	50 0 0	...	...	...	...	...	...	5 0 0	...	...
	Rangobeli ...	...	...	...	...	57 10 0	...	...	...	...	...	...	4 6 0	...	...
	Patia ...	...	...	...	...	56 0 0	...	...	...	...	...	...	4 6 0	...	...
	Biba ...	...	...	...	...	67 2 8	...	...	...	...	...	...	5 0 0	...	...
	Somitha ...	...	...	...	...	56 5 2	...	...	...	...	...	...	5 0 0	...	...
	Jambu ...	...	...	...	...	40 10 0	...	...	...	...	...	...	4 6 0	...	...
	Ambadoh ...	...	...	...	...	...	...	...	...	...	...	7 8 0	...	...	Repairs to 9 Tannas Rs. 40 [See detail].
	Shed for tools at Raipur	...	...	...	...	...	...	...	...	...	...	...	...	24 8 0	
	Sembadoh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Cattle pound at Sembadoh	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kolkaz ...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Chowrakund ...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Borda ...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total ...	...	...	263 9 0	8 0 0	485 8 1	3 4 0	24 7 0	22 6 8	...	...	7 8 0	42 8 0	24 8 0	51 6 0
	Rest Houses.														
	Makla rest house ...	...	27 0 0	...	...	...	...	...	67 1 6	...	1 3 2	...	112 12 0	...	...
	Hatra do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kolkaz do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Makla observatory ...	...	...	...	...	...	...	307 15 3	...	141 5 4	...	...	...	...	...
	Total ...	...	27 0 0	...	...	...	...	307 15 3	67 1 6	141 5 4	1 3 2	...	112 12 0	...	...
	Grand Total of Bairagarh Reserve.	...	27 0 0	263 9 0	8 0 0	485 8 1	3 4 0	332 6 3	89 8 2	141 5 4	1 3 2	7 8 0	155 4 0	24 8 0	51 6 0
Gugamal Reserve.	*Tannas.*														
	Dakna ...	...	...	...	...	...	...	10 0 0	...	...	2 0 0	...	...	...	...
	Gurgipati ...	...	...	...	...	...	...	10 0 0	...	...	2 0 0	...	...	...	...
	Darkot ...	...	...	...	...	...	...	10 0 0	...	...	...	...	...	5 0 0	...
	Patulda ...	...	...	...	...	...	...	10 0 0	...	...	2 0 0	5 1 0	...	...	...
	Tarubanda ...	...	...	...	...	...	...	6 0 0	...	...	2 0 0	...	...	...	...
	Khatikale ...	...	...	...	...	...	...	...	...	7 0 0	...	...	...	...	...
	Modra ...	...	...	...	...	...	...	...	...	...	...	5 0 0	...	...	...
	Pirkheda ...	...	...	...	...	...	...	...	...	...	...	3 0 0	...	...	...
	Koha ...	...	...	...	...	...	...	...	...	...	...	...	...	8 0 0	...
	Chiladari ...	...	...	...	...	...	...	...	...	...	...	...	...	10 0 0	...
	Bairat ...	...	...	...	...	...	...	...	...	...	...	...	...	4 0 0	...
	Assalwara ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dollar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bari ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Store house at Assalwara	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Do. Bairat	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bangrao Churni ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pastalai ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arao ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	...	...	...	...	46 0 0	...	7 0 0	8 0 0	13 1 0	...	27 0 0	...
	Rest Houses.														
	Dakna rest house ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Grand Total of Gugamal Reserve.	...	...	...	...	...	...	46 0 0	...	7 0 0	8 0 0	13 1 0	...	27 0 0	...

ESTS.

Ellichpur Division from 1874-75 *up to the year* 1888-89.

1881-82.		1882-83.		1883-84.		1884-85.		1885-86.		1886-87.		1887-88.		1888-89.		Total Expenditure.	
Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.
RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
...	12 4 3	...	4 0 0	...	4 0 0	...	...	...	4 0 0	...	4 0 0	...	4 0 0	...	5 0 0	95 0 0	47 1 5
...	5 0 0	...	4 0 0	...	4 0 0	...	3 15 0	...	4 0 0	...	4 2 0	...	4 0 0	...	5 1 0	77 5 0	34 2 0
...	5 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	50 0 0	4 0 0	159 9 3	38 0 0
...	14 14 6	...	6 9 0	...	4 0 0	...	...	50 0 0	...	...	3 14 0	...	4 0 0	...	4 15 0	59 0 0	36 7 0
...	5 0 0	...	...	...	3 15 0	...	...	...	...	...	...	...	...	...	...	42 2 0	25 15 9
...	13 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	3 15 0	...	3 10 0	...	4 0 0	50 0 0	45 9 0
...	5 0 0	...	4 0 0	...	4 0 0	...	3 15 0	...	3 15 0	...	3 15 0	...	4 0 0	...	4 0 0	71 12 0	37 3 0
...	5 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	59 0 0	38 0 0
...	5 0 0	...	4 0 0	...	4 0 0	...	22 15 0	...	3 15 0	...	4 0 0	...	4 0 0	...	4 0 0	57 10 0	56 4 0
...	5 0 0	...	4 0 0	...	4 0 0	...	3 15 0	...	3 15 0	...	3 15 0	...	4 0 0	...	4 0 0	58 0 0	37 3 0
...	5 0 0	...	4 6 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	3 14 0	...	4 0 0	67 2 8	37 14 0
...	5 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	3 10 0	...	4 0 0	56 5 2	37 10 0
...	5 0 0	...	4 0 0	...	4 0 0	...	...	...	...	...	...	...	...	...	...	40 10 0	17 6 0
...	5 0 0	...	2 0 0	...	3 15 0	...	...	...	4 0 0	...	3 2 0	50	3 8 0	...	5 0 0	57 8 0	26 9 0
...	...	...	3 15 0	...	4 0 0	...	4 0 6	...	...	...	12 3 0	...	...	...	...	24 8 0	24 2 0
...	5 0 0	...	3 15 0	666	3 15 0	...	4 11 0	...	4 0 0	...	13 0 0	...	51 2 0	...	...	666 0 0	83 11 0
...	...	...	...	...	...	...	...	50 0 0	...	...	...	...	...	...	4 14 0	50 0 0	4 14 0
...	4 15 0	...	...	...	3 15 0	...	...	...	...	50 0 0	...	...	4 0 0	...	4 13 6	50 0 0	17 14 0
...	5 0 0	...	4 0 0	...	4 0 0	...	3 15 0	...	3 15 0	...	3 15 0	...	4 0 0	...	4 0 0	...	32 13
...	5 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	4 0 0	...	33 0
...	115 2 3	...	68 7 0	666	75 12 0	...	71 6 6	100 0 0	55 12 0	50 0 0	80 1 0	50	109 12 0	50 0 0	69 14 0	1,721 8 1	733 11 5
...	32 5 0	...	127 13 0	...	43 7 0	...	15 6 0	...	26 3 6	...	22 10 0	...	248 15 9	...	4 14 6	...	729 11
...	...	...	...	...	...	...	...	...	...	...	...	100	...	...	30 0 0	100 0 0	30 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,550 0 0	...	1,550 0 0	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	449 4 7	*40 0 0
...	32 5 0	...	127 13 0	...	43 7 0	...	15 6 0	...	26 3 6	...	22 10 0	100	248 15 9	1,550 0 0	34 14 6	2,099 4 7	799 11 5
...	147 7 3	...	196 4 0	666	119 3 0	...	86 12 6	100 0 0	81 15 6	50 0 0	102 11 0	150	358 11 9	1,600 0 0	104 12 6	3,820 12 8	1,533 6 10
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	4 0 0	...	5 10 0	60 0 0	15 10 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10 0 0	2 0 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15 0 0	...
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	4 0 0	...	5 6 0	65 1 0	15 6 0
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	4 0 0	...	5 4 6	56 0 0	15 4 6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3 0 0	...
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	3 15 0	...	5 12 0	58 0 0	13 11 0
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	4 0 0	...	5 12 0	60 0 0	13 12 0
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	1 8 0	...	4 0 0	54 0 0	9 8 0
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	4 0 0	...	5 9 0	50 0 0	13 9 0
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	4 0 0	...	5 12 0	50 0 0	13 12 0
...	...	...	...	...	...	...	...	50 0 0	...	...	4 0 0	...	4 0 0	...	5 12 0	50 0 0	13 12 0
7 8 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7 8 0	...
17 8 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17 8 0	...
...	...	8 1 0	...	...	...	...	...	...	...	...	...	...	...	48 5 0	...	56 6 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	2 8 0	...	...	...	2 8 0
...	...	...	...	...	...	...	...	...	...	...	...	...	4 0 0	...	...	...	4 0 0
25 0 0	...	8 1 0	...	...	...	...	...	450 0 0	...	...	36 0 0	...	39 15 0	48 5 0	48 13 6	624 7 0	132 12 6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,550 0 0	...	1,550 0 0	...
25 0 0	...	8 1 0	...	...	...	...	...	450 0 0	...	...	36 0 0	...	39 15 0	1,598 5 0	48 13 6	2,174 7 0	132 12 6

*Vide repairs to 9 Tanna during 1880-81.

FOR

APPENDIX C-(2).—*Statement showing the Expenditure on Buildings in the*

Name of Range. Chikalda Reserve. Melghat Unreserved Forests.

Name and description of Building.	1874-75. Construction.	1874-75. Repairs.	1875-76. Construction.	1875-76. Repairs.	1876-77. Construction.	1876-77. Repairs.	1877-78. Construction.	1877-78. Repairs.	1878-79. Construction.	1878-79. Repairs.	1879-80. Construction.	1879-80. Repairs.	1880-81. Construction.	1880-81. Repairs.
Rest-House.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Conservator's Bungalow	...	1,219 6 11	...	83 7 10	...	452 3 0	...	34 11 4	...	914 13 3	...	668 6 10	...	238 16 0
Panchgrove ...	...	408 10 3	...	2 13 0	...	1 4 0	...	...	...	19 9 6	...	21 13 10	...	0 10 0
Elephant's ratab hut ...	...	...	...	...	...	...	...	...	...	...	...	...	3 12 0	...
Shed for elephant ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grand Total of Chikalda Reserve.	...	1,628 1 2	...	86 4 10	...	453 7 0	...	34 11 4	...	934 6 9	...	690 4 8	3 12 0	239 4 0
Tannas.														
Nimkhera ...	35 8 0	...	...	6 0 0	...	3 1 0	...	...	...	...	...	...	...	...
Jhiri ...	23 0 0	...	29 4 0	...	...	...	...	4 0 0	...	...	...	10 0 0	25 0 0	...
Gowlkhera ...	32 0 0	...	...	...	...	7 0 0	...	...	...	...	...	...	...	...
Dhamangaon	73 5 6	...	88 6 3	3 8 0	...	5 9 0	...	13 0 0	...	7 8 0	...	10 2 0	...	14 8 0
Saderpoor ...	...	...	10 4 0	...	20 13 0	...	...	...	...	...	...	...	...	...
Boralla ...	...	...	23 0 0	...	...	...	20 10 6	...	...	13 4 0	...	5 0 0	...	4 0 0
Deogaon ...	...	...	22 7 4	...	...	...	...	4 8 0	...	5 0 0	...	5 0 0	...	5 8 0
Khurpi ...	...	...	17 4 0	...	...	...	...	...	...	...	28 0 0	...	...	3 0 0
Jamod ...	...	...	...	5 0 0	10 2 0	0 6 0	...	...	...	...	...	...	...	...
Kasod ...	...	...	17 14 0	2 2 0	...	2 0 0	...	...	...	29 8 0	...	2 6 0	19 0 0	...
Wagdoh ...	...	...	39 10 0	...	...	2 6 0	36 10 9	...	...	...	...	23 1 0	...	17 0 0
Bhairam ...	...	...	34 6 6	...	3 8 0	...	57 14 3	2 0 0	...	11 0 0	...	9 0 0	...	12 0
Wagholi ...	...	...	30 7 0	...	...	0 12 0	...	3 15 0	...	3 14 6	...	10 0 0	...	15 0
Kalamkhar ...	...	...	30 1 6	...	...	...	29 0 0	8 0 0	...	5 0 0	...	6 0 0	...	...
Sonalla ...	...	...	...	...	31 14 0	...	...	...	...	...	...	...	...	...
Khirkheda ...	...	...	...	...	...	...	20 0 0	...	...	...	...	5 0 0	...	7 0
Bagali ...	...	...	...	...	...	...	27 12 6	...	...	5 0 0	...	4 0 0	...	2 0
Ambadi ...	...	...	...	...	...	...	38 15 3	...	...	4 0 0	...	10 0 0	...	10 8
Chinchona ...	...	...	...	...	...	...	35 7 0	...	...	7 4 0	...	5 0 0	...	12 0 0
Malhara ...	...	...	...	...	...	...	43 13 6	...	...	6 0 0	...	9 0 0	...	5 0 0
Kamod ...	...	...	...	...	...	...	21 0 0	...	...	6 0 0	18 0 0	...	...	3 0 0
Kajaldoh ...	...	...	...	...	...	...	...	...	10 0 0	4 0 0	...	...	...	2 0 0
Hut for Malhara peon...	...	...	...	...	...	...	...	...	...	...	...	...	1 0 0	...
Suserda ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pingli ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saolikheda ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hut at Ellichpur Cantonment wood bazaar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	163 13 6	...	333 0 7	16 10 0	66 5 0	21 2 0	331 3 3	35 7 0	10 0 0	108 6 6	46 0 0	113 9 0	45 0 0	114 8 0
Open Blocks.														
3 Nakas, names not given.	26 10 0	...	...	...	...	...	...	...	...	...	...	...	...	...
Jamba ...	...	...	9 0 0	...	...	...	...	...	...	...	...	...	...	...
Tarubanda ...	...	...	4 4 0	...	...	...	...	...	...	...	...	...	...	...
Borekhera ...	...	...	6 0 0	...	...	...	...	...	...	...	...	...	...	...
Chakarda ...	...	...	...	...	10 0 0	...	...	...	...	...	...	...	...	...
Churni ...	...	...	...	...	5 0 6	...	...	...	...	...	...	...	...	...
Salona ...	...	...	...	...	7 0 0	...	...	...	...	...	...	...	...	...
Darkat ...	...	...	...	...	6 0 0	...	...	...	...	...	...	...	...	...
Kuda ...	...	...	...	...	8 0 0	...	...	...	...	...	...	...	...	...
Gurgati ...	...	...	...	...	11 0 0	...	...	...	...	...	...	...	...	...
Total ...	26 10 0	...	19 4 0	...	47 0 0	...	...	...	...	...	...	...	...	...
Grand Total of Melghat Unreserved Forests.	190 7 6	...	352 4 7	16 10 0	113 5 0	21 2 0	331 3 3	35 7 0	10 0 0	108 6 6	46 0 0	113 9 0	45 0 0	114 8 0
Grand Total of all Expenditure.	190 7 6	1,655 1 2	615 13 7	110 14 10	599 13 1	477 13 0	709 9 6	159 10 0	158 5 4	1,052 0 5	66 9 0	959 1 8	100 4 0	403 2 0

ESTS.

Ellichpur Division from 1874-75 *up to the year* 1888-89—*continued.*

1881-82.		1882-83.		1883-84.		1884-85.		1885-86.		1886-87.		1887-88.		1888-89.		Total Expenditure.	
Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.	Construction.	Repairs.
RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
...	207 15 3	...	81 10 5	...	834 6 3	...	2 6 0	...	182 8 0	...	125 6 6	...	1,565 9 3	...	611 9 0	...	7,223 1 10
...	31 0 0	...	286 15 0	...	2 8 0	...	133 0 0	...	...	...	...	...	...	...	71 5 6	...	979 9 1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3 12 0	...
...	...	33 3 0	...	...	...	...	...	...	...	...	...	...	...	...	...	33 3 0	...
...	238 15 3	33 3 0	368 9 5	...	836 14 3	...	135 6 0	...	182 8 0	...	125 6 6	...	1,565 9 3	...	682 14 6	36 15 0	8,202 10 11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35 8 0	9 1 0
...	9 8 0	...	6 0 0	...	5 0 0	...	8 13 0	...	10 0 0	...	5 0 0	...	6 0 0	...	12 4 0	77 4 0	76 9 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32 0 0	7 0 0
...	16 0 0	...	2 0 0	...	4 4 3	...	5 8 0	...	7 12 6	...	7 0 0	...	15 0 0	...	23 7 6	161 11 9	135 3 3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31 1 0	...
...	10 0 0	...	0 6 0	...	8 4 9	...	2 0 0	...	3 12 0	...	4 15 9	...	5 0 0	...	10 0 0	43 10 6	66 10 6
...	5 8 0	...	...	...	10 0 0	...	3 9 0	...	4 14 0	...	5 0 0	...	9 3 6	...	6 0 0	22 7 4	64 2 6
...	5 0 0	...	5 0 0	...	5 0 0	...	7 0 0	...	5 0 0	...	8 0 0	...	6 10 0	...	10 0 0	45 4 0	56 10 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10 2 0	5 6 0
...	12 0 0	...	11 0 0	...	10 12 0	...	5 0 0	...	8 0 0	...	10 0 0	...	9 0 0	259 15 0	11 0 0	296 13 0	112 12 0
...	13 0 0	...	15 0 0	...	15 0 0	...	12 0 0	...	13 4 9	...	5 0 0	...	9 13 6	...	14 8 0	66 4 9	140 1 3
...	9 0 0	...	7 0 0	...	6 11 0	...	23 0 6	...	5 0 0	...	5 15 0	...	14 0 0	...	12 4 0	95 12 9	115 14 6
...	10 0 0	...	10 0 0	...	5 0 0	...	5 0 0	...	13 7 0	...	3 0 0	...	6 0 0	...	7 4 0	30 7 0	93 4 6
...	5 0 0	...	5 15 0	...	10 0 0	...	10 0 0	...	8 0 0	...	8 3 0	...	3 9 0	...	19 8 9	59 1 6	89 3 9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31 14 0	...
...	6 13 0	...	4 0 0	...	10 0 0	...	8 0 0	...	6 0 0	...	6 0 0	...	10 0 0	...	11 0 0	20 0 0	73 13 0
...	10 0 0	...	10 8 0	...	10 0 0	...	6 0 0	...	3 0 0	...	5 0 0	...	6 6 0	...	12 0 0	27 12 0	73 8 0
...	5 0 0	...	8 0 0	...	9 8 0	...	9 8 0	...	7 8 0	...	8 0 0	...	5 0 0	...	10 10 0	38 15 3	87 10 0
...	12 3 9	...	8 0 0	...	16 0 0	...	5 8 0	...	3 0 0	...	5 0 0	...	9 8 0	...	9 5 6	35 7 0	92 12 6
287	...	...	...	...	2 2 0	...	...	...	4 0 0	...	5 0 0	...	17 0 0	103 8	10 0 0	434 5 6	88 2 0
...	15 10 0	...	8 0 0	...	3 0 0	...	...	...	2 0 0	...	...	...	...	...	...	39 0 0	34 10 0
19	...	...	7 0 0	...	10 0 0	...	5 0 0	...	4 0 0	...	6 0 0	...	8 0 0	...	5 0 0	29 0 0	51 0 0
...	...	2 0 0	...	...	2 0 0	...	5 0 0	...	...	...	...	...	...	...	...	3 0 0	7 0 0
10	...	...	...	...	5 0 0	...	3 4 0	...	5 0 0	...	5 0 0	...	5 4 0	10 0 0	...	20 0 0	23 8 0
...	...	...	...	...	...	...	...	52 0 0	...	...	5 2 0	...	8 0 0	...	14 14 0	52 0 0	28 0 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8 0 0	...	8 0 0
...	...	...	...	...	...	...	...	4 8 0	...	...	...	...	...	...	...	4 8 0	...
316	144 10 0	2 0 0	102 13 0	...	147 10 0	...	124 2 6	56 8 0	113 10 3	...	107 3 9	...	153 0 0	373 7 0	207 1 9	1,749 5 4	1,509 13 9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26 10 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4 4 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11 0 0	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	92 14 0	...
316	144 10 0	2 0 0	102 13 0	...	147 10 0	...	124 2 6	56 8 0	113 10 3	...	107 3 9	...	153 0 0	373 7 0	207 1 9	1,836 3 4	1,509 13 9
341	531 0 6	43 4 0	667 10 5	666	1,103 11 3	...	346 5 0	606 8 0	378 1 9	50	371 5 3	150	2,117 4 0	3,571 12 0	1,043 10 3	7,868 6 0	11,378 12 0

FORESTS.

APPENDIX C.-(3)—*Statement showing expenditure on Wells, Tanks, and Jhiras in the Ellichpur Division from* 1874-75 *to* 1888-89.

Name of Range.	Wells, Tanks, and Jhiras.	1874-75. Construction.	1874-75. Repairs.	1875-76. Construction.	1875-76. Repairs.	1876-77. Construction.	1876-77. Repairs.	1877-78. Construction.	1877-78. Repairs.	1878-79. Construction.	1878-79. Repairs.	1879-80. Construction.	1879-80. Repairs.	1880-81. Construction.	1880-81. Repairs.	1881-82. Construction.	1881-82. Repairs.	1882-83. Construction.	1882-83. Repairs.	1883-84. Construction.	1883-84. Repairs.	1884-85. Construction.	1884-85. Repairs.	1885-86. Construction.	1885-86. Repairs.	1886-87. Construction.	1886-87. Repairs.	1887-88. Construction.	1887-88. Repairs.	1888-89. Construction.	1888-89. Repairs.	Total. Construction.	Total. Repairs.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs.	Rs. a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs.	Rs. a. p.	Rs.	Rs.	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs.	Rs.	Rs. a. p.	Rs.	Rs.	Rs.
Balaghat Reserve.	**WELLS.**																																
	Makla 3 ...	...	4	...	...	...	...	60 4 0	...	...	...	...	20 0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1 2 0	64	21
	Rakia 1 ...	...	...	...	...	...	...	...	...	...	12 14 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13
	Borkeri 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	4 8 0	...	...	...	...	...	...	...	...	424 1 2	...	472 12 10	...	...	...	...	...	...	5
	Sembedoh 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4 14 0	...	...	...	...	...	...	897	...
	Shayi 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9 9 0	...	...	...	...	...	0 9 0	...	5
	Surwar 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8 4 0	...	...	...	0 15 0	...	10
	Bhipoal 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12 12 0	...	...	...	0 12 0	...	9
	Bhosikera 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9 0 0	...	...	...	...	...	13
	Chorpi 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0 6 0	...	9
	Chaorakund 1 ...	...	...	...	...	...	...	...	...	8 4 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...
	Hatru 1 ...	...	...	...	...	...	...	...	...	17 4 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	...
	Harisal 1 ...	...	...	...	...	...	...	...	...	10 0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...
	Jamboo 1 ...	...	...	...	...	...	...	...	...	10 0 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0 15 0	10	...
	Raipur 1 ...	...	...	...	...	...	...	...	...	19 12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80 0 0	15 0 0	100	15
	Domi 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5 13 0	...	...	...	0 15 0	...	7
	Khapra 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7 8 0	...	...	...	0 15 0	...	8
	Kunalji 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3 12 0	...	...	...	0 15 0	...	5
	Boldni 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80	...	...	...	80	...
	Abapur 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1 8 0	...	2
	Jodkuwa 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0 12 0	...	1
	Khakra 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0 15 0	...	1
	Total ...	...	4	...	...	...	...	60 4 0	...	68 4 0	12 14 0	...	20 0 0	...	4 8 0	...	...	...	...	...	...	...	...	424 1 2	14 7 0	472 12 10	47 1 0	80	...	80 0 0	25 11 0	1,189	125
	Sati tank ...	...	...	...	...	...	...	...	...	...	297 9 2	...	69 5 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	367
	Total ...	...	4	...	...	...	...	60 4 0	...	68 4 0	310 7 2	...	89 5 11	...	4 8 0	...	...	...	...	...	...	...	...	424 1 2	14 7 0	472 12 10	47 1 0	80	...	80 0 0	25 11 0	1,189	492
Gugamal Reserve.	**WELLS.**																																
	Patulda 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3 0 0	10	3
	JHIRAS.																																
	Dhargar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	11 10 9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12
	Tarabanda 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...
	Gugamal 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	105 8 0	...	105	...
	Chiladari 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19 1	...	20	...
	Koilari ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2 0 0	...	2	...
	Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	11 10 9	10	...	...	...	...	...	...	...	...	...	...	...	...	...	127 4 0	3 0 0	147	15
Melghat Unreserved Forests.	**WELLS.**																																
	Wasali ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	576 8 0	...	...	...	20	...	...	...	...	...	...	...	...	...	576	...
	Bairum ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	20	...
	Kajaldoh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	90 0 0	...	...	...	...	...	...	...	3	...
	Ghiree ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7 0 0	90	7
	JHIRAS.																																
	Khatkali ...	...	...	...	...	...	...	...	...	...	...	...	...	...	6 12 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
	Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	6 12 0	...	...	576 8 0	...	...	...	23	...	90 0 0	...	...	...	...	...	...	7 0 0	689	14
	Grand Total ...	4	...	...	...	...	...	60 4 0	...	68 4 0	7 2	...	89 5 11	10	22 14 9	10	...	576 8 0	...	...	...	23	...	514 1 2	14 7 0	472 12 10	47 1 0	80 0 0	...	207 4 0	35 11 0	2,025	521

FORESTS.

APPENDIX D.—*Statement of Expenditure incurred in the Public Works Department on Roads and Tanks in the Melghat, Ellichpur Division, during the years 1874-75 to 1888-89 inclusive.*

	1874-75	1875-76	1876-77	1877 78	1878-79	1879-80	1880 81	1881-82	1882-83	1883-84	1884 85	1885-86	1886 87	1887 88	1888-89	Total.	Remarks
	Rs	Rs	Rs.	Rs	Rs	Rs.	Rs	Rs	Rs	Rs	Rs	Rs	Rs.	Rs	Rs.	Rs.	
Ellichpur-Pili Road	1,636	10,562	39,308	33,678	64,631	88,139	48,848	34,283	3,904	931	...	...	...	a 12,564	.	3,38,484	a Expenditure on additional bridges
Ghatang-Chikalda Road			...	...	...		5,088	12,823	...	662	...	..	...	b 2,852	...	21,425	b Additions to dak and inspection bungalow
Gugamal Forest Road	...	..	..	.	...	...	...		...	...	.	23,613	93,307	78,196	c ...	1,95,116	c 36¾ miles under construction, expenditure not given by the Executive Engineer Melghat Roads Sub Division.
Pili-Kalamkhai Road			..	...	..	...	3,500	...	..	...	...		...	...		3,500	
Melghat Anicuts ..	...	...	...	...	...	...	...	...	3,088	6,971	14,139	9,168	4,521	3,738	d	41,625	d The Patoola anicut in progress.
Mardi Tank	.	...	..		...	...	...	...	...	6,770	16,233	12,048	2,165	...	.	37,216	
Total	1,636	10,562	39,308	33,678	64,631	88,139	57,436	47,106	6,992	15,334	30,372	44,829	99,993	97,350	.	6,37,366	

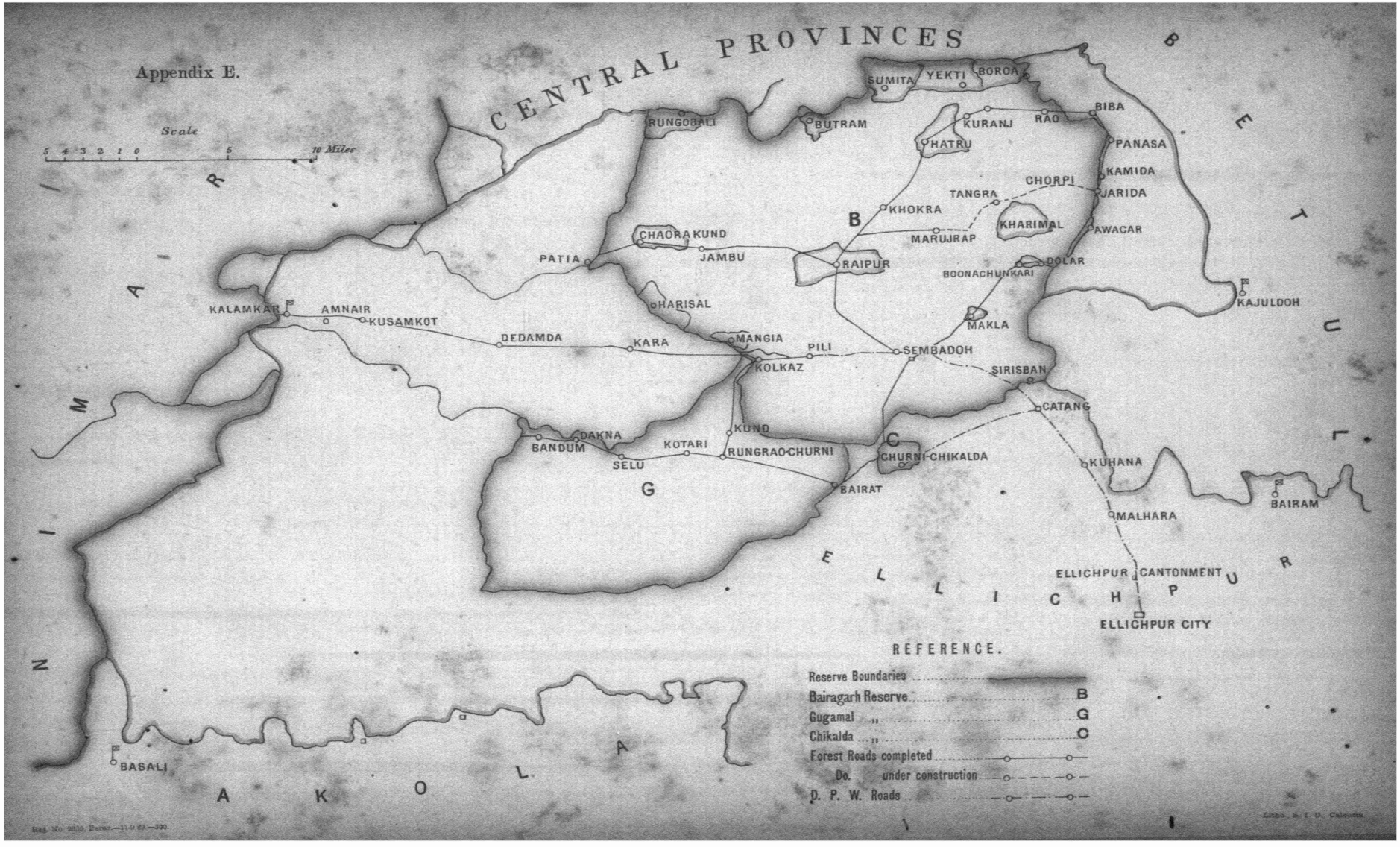
FORESTS.

APPENDIX F.—*Meteorological Observations made in Reserved Forests.*

Month.	Mean of Hygrometer.								Mean of Thermometer.					
	Chikalda.				Makhla.				Chikalda.			Makhla.		
	10 A.M.		4 P.M.		10 A.M.		4 P.M.		10 A.M.			4 P.M.		
	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Dry bulb.	Wet bulb.	Dry maximum.	Dry minimum.	Wet minimum.	Dry maximum.	Dry minimum.	Wet minimum.
April 1888 ...	83·5	61·5	90·4	63·0	89·0	64·4	93·8	66·0	92·7	73·1	55·6	89·9	73·1	60·1
May " ...	83·9	62·1	89·9	63·3	88·9	67·4	96·7	67·2	93·8	71·7	57·8	91·1	74·1	62·5
June " ...	75·6	71·1	77·9	71·0	81·4	73·9	85·5	74·3	89·6	69·5	66·1	84·9	72·4	68·8
July " ...	64·3	64·1	70·6	66·0	71·2	69·8	73·9	71·0	75·3	65·8	65·0	75·7	69·4	68·2
August " ...	66·8	66·4	69·5	68·7	73·2	68·4	73·2	75·1	72·6	64·7	64·5	73·4	67·6	66·5
September " ...	72·2	69·0	74·6	6 9·2	75·0	78·0	77·7	71·6	77·0	65·7	63·8	75·7	66·6	65·4
October " ...	75·7	63·6	76·3	63·8	77·5	66·9	82·0	68·1	80·4	63·1	57·5	77·9	64·1	59·6
November " ...	70·3	61·2	72·0	62·3	70·4	63·0	75·6	67·7	74·8	60·2	55·3	72·4	70·0	57·4
December " ...	67·7	54·4	70·7	55·9	66·2	55·3	74·1	59·2	70·7	55·4	47·7	67·6	54·6	49·2
January 1889 ...	69·6	56·0	75·6	57·5	68·4	56·4	78·4	67·0	78·0	62·3	50·3	72·4	58·4	52·0
February " ...	70·8	54·6	77·0	57·9	71·6	57·0	81·4	67·0	79·3	59·6	49·3	74·5	61·0	52·0
March " ...	79·9	57·9	84·4	59·4	83·3	62·1	87·9	63·8	87·4	68·8	51·7	85·0	69·4	57·2
Total ...	830·3	741·9	928·3	758·0	916·1	782·6	980·2	818·0	971·6	779·9	684·6	937·5	800·7	718·9
Mean ...	73·4	61·8	77·4	63·2	76·3	65·2	81·7	68·2	81·0	65·0	57·1	78·1	66·8	59·9

Month.	Rain-fall.																																															
	Chikalda Reserve.			Bairagarh Reserve.																																												
				Makhla.																																												
	Chikalda.			Tree gauge.			Ground gauge.			Raipur.			Pili.			Patia.			Hatru.			Warwand.			Iswi.			Marwad Khund.			Sondabi.			Suna.		
	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy day.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy days.	Inches.	Cents.	No. of rainy day.	Inches.	Cents.	No. of rainy days.
April 1888 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May " ...	...	...	...	...	41	1	...	41	1	...	5	1	...	24	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	6	1	...	...	...
June " ...	9	62	12	5	68	10	6	44	10	5	93	12	5	55	9	3	14	8	9	54	14	4	60	12	7	84	9	9	80	16	9	63	18	6	85	16
July " ...	21	90	28	22	56	26	26	24	26	20	50	28	22	99	27	11	85	24	16	91	28	6	20	15	12	16	22	8	71	21	17	5	19	19	20	19
August " ...	13	6	30	9	99	21	11	74	29	7	48	26	7	32	26	7	21	25	12	31	29	8	65	19	5	39	21	5	4	21	6	2	24	4	4	13
September " ...	11	14	6	10	16	8	10	81	8	8	63	6	7	86	8	8	49	6	9	...	8	3	25	3	2	70	3	3	74	9	2	48	8	...	45	4
October " ...	...	38	3	...	21	1	...	34	1	2	...	4	...	6	1	...	10	1	1	54	3	...	50	2	1	57	2	1	12	2	...	7	2	1	32	8
November " ...	1	76	5	1	29	4	1	57	4	...	45	3	...	91	3	...	50	2	...	21	3	1	70	4	5	1	7	2	76	6	2	46	8	...	...	...
December " ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	44	1	...	...	...	...	...	...	...	...	...
January 1889 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February " ...	...	25	1	...	1	1	...	6	1	...	19	2	...	...	...	...	16	1	...	37	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March " ...	...	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	58	16	86	50	31	80	57	61	80	45	23	82	44	93	75	31	45	67	49	88	87	24	90	55	35	31	65	31	19	76	37	77	89	31	86	55

Appendix E.



Reg. No. 2610. Dates—11-9-09—300.

Litho. S. T. O. Calcutta.

Extract from the Proceedings of the Resident at Hyderabad, No. 3576-M, dated Hyderabad Residency, the 6th November 1889.

Read—

Report on Forest Administration in the Hyderabad Assigned Districts during the year 1888-89

RESOLUTION.

This report was due in the Resident's office on the 11th August last. It was not punctually submitted by the Conservator, and was not received complete with the Commissioner's review till the 20th September.

2. *Law.*—The new Berar Forest Law, and the questions which have led to a postponement of its application, are at present under the Resident's consideration on a separate reference

3. *Cultivation.*—In paragraph 3 of his forwarding letter the Commissioner observes that in the Basim district 26 square miles of unreserved forest land were given over for cultivation "probably before orders were received prohibiting further extension of cultivation pending classification." If this remark means that there may have been a neglect of orders, but that the Commissioner is not sure, the position is not satisfactory.

The divisional forest officers for Buldana and Wun state that a destructive practice prevails in those districts, of taking up unreserved lands on the mere pretence of cultivating them, only to resign them when the more valuable timber has been cut out, and presumably to continue the same operation elsewhere. The Resident wishes this matter to be reported on separately in more detail, and suggestions to be made for checking such an abuse.

4 *Melghat boundary.*—A proposal for the settlement of the western boundary of the Melghat, which is the only part of the taluk where the forest survey has not been completed, has been submitted to the Government of India.

5. *Prosecutions*—The variations in the number of prosecutions, referred to in paragraph 34 of the report, would seem *primâ facie* to be due in a great measure to the idiosyncracies of the Sub-Assistant Conservator Mr. Rasul Khan. The Resident would be glad if the Commissioner would look further into the action of this officer in both the Buldana and Amraoti districts.

6. *Grazing dues.*—The Commissioner, in paragraph 7 of his letter, observes that there is probably some diversity of practice in the system of realising grazing dues in the several districts. The Resident will be glad to receive a report upon this subject.

7. *Working plans.*—In paragraph 26 of the report the Conservator refers to the need for working plans, and the difficulty in getting them prepared with the present limited establishment of officers. The Resident thinks it is worth considering whether the services of an officer of the working plans division of the Forest Department should not be applied for for a few years.

8. *Fire conservancy.*—Fire conservancy was successful in all districts except Wun. Referring to paragraph 45 of the report, the Resident quite agrees with Mr. Dabsey that the punishment—three months' imprisonment—awarded to a Gond incendiary to whom the burning of 1,800 acres in the Gondwakri forest was traced, was not adequate.

9 *Grazing.*—The question of "light-grazing" in the demarcated State forests is highly important. The Conservator is mistaken in supposing that the original motive for granting the concession was "purely and simply to make money" It is clear from Mr. Drysdale's memorandum submitted with the Commissioner's letter No. 2040 of the 21st April 1884, from his subsequent report No. 551 of the 30th December of the same year, and from the orders* passed on these papers, that the measure was introduced, not only as a means of making the reserves self-supporting, but also as being in itself rather beneficial than otherwise to forest growth, and as tending to diminish the restrictions incidentally imposed on the people by forest conservancy. The question was discussed at considerable length in the report for the year 1887-88, and the Government of India remarked that experience had proved that it was dangerous to utilise the Reserves as freely as had been intended when the so-called light-grazing was introduced, but that, as it was four years since the Reserves had been thrown open by the Conservator to limited pasture, their reclosure would already seem to present difficulties, and that the results of further enquiries as regards these difficulties, which it was hoped might be overcome, was awaited. The Government of India further requested that it might be considered whether it would not be preferable to close certain areas entirely until their reproduction was ensured, and then in turn to protect others till the young growth within them was established. The Commissioner has called for a report on these points The Conservator has meanwhile found it necessary to put a stop to all grazing within the demarcated State forests, except in those cases, which he hopes are very few, where undoubted hardship would be caused to the surrounding population.

* From Secretary for Berar, to Commissioner, No 250, dated the 3rd February 1885
From Secretary to Government of India, Home Department, to Resident, No. 120-F, dated the 20th February 1885.

The pass-system of grazing and the difficulties connected with it, to which reference is made in paragraph 18 of the report, are under separate consideration.

10. *Natural re-production.*—The subject of natural re-production in the demarcated State forests is taken up in a separate appendix (B) to the report, in accordance with the instructions of the Government of India. The Officiating Conservator has no personal knowledge of the Akola, Basim, and Buldana forests. His acquaintance with the Wun forests and the reports of the divisional officers point to the conclusion that there is in Berar "a general absence of successful natural reproduction."

11. *Cultural operations.*—As regards the cultural operations mentioned in paragraph 53 of the report, the Conservator should insist on his subordinates reporting to him in full detail all experiments made by them, but it is unnecessary for him to give details in his administration report of petty experiments which have failed, unless there is something distinctly instructive in the failure. It is enough, where only Rs 200 or Rs. 300 has been spent in a district without any result worth mentioning, to state the fact that it has been so spent, and that the Conservator is, or is not, satisfied with the explanation given by the officer entrusted with the expenditure of it. The Resident presumes that each officer, before the commencement of a year, submits to the Conservator for his approval a scheme of the experiments he proposes to undertake during the ensuing year. This is the more necessary when there are no regular working plans.

12. *Portable tramways*—Referring to the scheme for introducing portable tramways, the Conservator observes that none of the State forests in South Berar as yet contain anything to export; that the forests in the Melghat cover a difficult country, in which suitable lines of tramways seem to be impracticable; and that in any case the apparent resources of the Melghat are too limited and inferior in value to justify the supposition that a tramway would be just now, or even in the near future, anything but a ruinous undertaking. He adds that a larger capital has perhaps already been sunk in these forests, in the shape of roads, than is warranted by their present value. Upon the information before him, the Resident is disposed to concur in these opinions.

13. *Financial results.*—The following table compares the financial results of the year under review with those of 1887-88 :—

Year.	Receipts.	Charges.	Net surplus.	Proportion of surplus to gross revenue.
	Rs.	Rs.	Rs.	
1888-89	4,08,192	1,69,295	2,38,897	58·6
1887-88	4,06,247	1,83,160	2,23,087	54·9
Increase in 1888-89	1,495	...	15,810	3·7
Decrease in 1888-89	...	13,865	...	...

The income of the year under review is practically the same as that of the preceding year, the increase being so small that it may be disregarded. But there has been a material reduction in expenditure, the main items of which are to be found under the head of salaries, where the reduction amounts to nearly Rs. 9,000, and communications and buildings, where the reduction exceeds Rs. 5,000. The former reduction is a clear gain. As regards the latter, it is impossible, in the absence of detailed explanation, to say whether it is the result of more economical administration, or is merely due to a smaller number having been undertaken of those works of improvement which the forest department of every province looks forward to carrying out some day or other.

14. *Notice of officers.*—The thanks of the Resident are due to the Officiating Conservator, Mr. Dansey, and to the officers whose good services he has brought to notice.

(By order.)

J. A. CRAWFORD,

Secretary for Berar.